FIRE PLANNING
For
AFATDS V6.3.1.0

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TABLE OF CONTENTS

How to Use This Manual. ..... A
Chapter 1. AFATDS and Basic Planning Functionality. 1
Section I. AFATDS Basic Planning Overview. 1
Section II. AFATDS Basic Planning Procedures. 2
CP 1. Create a Plan. 2
CP 2. Open a Plan. 4
CP 3. Delete a Plan. 5
CP 4. Close a Plan. 5
CP 5. Create a New Phase in an Existing Plan. 6
CP 6. Delete a Phase in an Existing Plan. 7
CP 7. Create and Access Plan Text. 8
CP 8. Receive and View a Plan. 11
CP 9. Implement a Plan. 13
CP 10. Transfer a Plan. 14
CP 11. Compare a Plan. 15
CP 12. Import a Plan. 15
Chapter 2. AFATDS and the Military Decision Making Process. 17
Section I. AFATDS and the MDMP. 17
Section II. Inputs from the MDMP and AFATDS. 26
FSP 1. Update Status from a FS system. 26
FSP 2. Input Enemy Order of Battle into a Plan. 29
FSP 3. Input HVTL into a Plan. 30
FSP 4. Develop Draft EFST's in a Plan. 31
FSP 5. Create and Send a Warning Order with AFATDS. 32
FSP 6. Create a Fire Support Execution Matrix. 34
FSP 7. Input Organization for Combat into a Plan. 35
FSP 8. Input Friendly Situation into a Plan. 37
FSP 9. Input Enemy Situation into a Plan. 38
FSP 10. Input Decision Support Template Graphics into a Plan. 39
FSP 11. Develop the Fire Support Estimate Text for a Plan. 40
FSP 12. Develop a Target List for a Plan. 41
FSP 13. Input a High Payoff Target List into a Plan. 42
FSP 14. Create Trigger Points into a Plan. 44
FSP 15. Input Field Artillery Restrictions into a Plan. 45
FSP 16. Input Munition Restrictions into a Plan. 46
FSP 17. Input Fire Support System Task List in a Plan. 48
FSP 18. Calculate Measure of Effectiveness for a Course of Action. 50
Chapter 3 AFATDS and the Field Artillery Support Plan. 51
AFATDS and the FA Battalion MDMP. 51
FA 1. Develop Draft EFAT's in a Plan. 59
FA 2. Create a Field Artillery Support Matrix. 61
FA 3. Create and Send a WARNO. 62
FA 4. Update Status of a FA Unit. 63
FA 5. Input Cannon Attack Methods into a Plan. 65
FA 6. Input Cannon Immediate Attack Methods into a Plan. 66
FA 7. Input MET Guidance into a Plan. 67
FA 8. Input Survey Guidance into a Plan. 68
FA 9. Input Position Areas into a Plan. 69
FA 10. Input Enemy Order of Battle into a Plan. 70

FA 11. Input Routes into a Plan. 71
FA 12. Input Movement Guidance into a Plan. 73
FA 13. Input Support Locations into a Plan. 74
FA 14. Input Decision Support Template Graphics into a Plan. 75
FA 15. Input FA Preference Table into a Plan. 76
FA 16. Input Field Artillery Restrictions into a Plan. 77
FA 17. Input Rocket Missile Attack Guidance into a Plan. 78
FA 18. Input Rocket Missile Guidance into a Plan. 78
FA 19. Input Supply Reporting Guidance into a Plan. 79
FA 20. Input CSR Guidance into a Plan. 80
FA 21. Input FA Estimate into a Plan. 81
Chapter 4. AFATDS and Fire Planning 83
Section I. AFATDS and Targeting. 83
Section II. AFATDS Fire Planning Procedures. 84
FP 1. Create a Target List for a Plan. 84
FP 2. Create a Target in a Target List. 85
FP 3. Create a Group in Planned Phase. 86
FP 4. Create a Series. 87
FP 5. Create a Fire Plan in a Plan. 88
FP 6. Search AFATDS Target Information. 89
FP 7. Schedule a Fire Plan. 90
FP 8. Execute a Schedule of Fires. 95
Appendix A 97
Measure of Effectiveness Statistics. 97
Tubes in Sector 97
Massing Capabilities (Tubes). 97
Rounds Required. 101
Task Supportable 101
Simplicity 105
System Utilization. 106
Appendix B 109
SAMPLE FS Annex. 109
SAMPLE WARNO. 112
SAMPLE FRAGO. 114

How to Use This Manual.

1. **Use.** This manual is intended for use as a detailed reference for specific tasks performed in the AFATDS for planning at Brigade and lower FSE's and for Field Artillery Battalion staffs.
2. **Design.** The manual is constructed in chapters related to specific task areas and functions that the AFATDS operator must perform, these chapters are:
    a. **Chapter 1**. AFATDS and basic planning functionality. Chapter 1 provides two sections; section one is an overview, which explains current doctrine and how the AFATDS is used as a tool in the planning process. Section two has basic planning procedure used in AFATDS with step-by-step instructions.
    b. **Chapter 2.** AFATDS and the Military Decision Making Process. Chapter 2 provides two sections; section one shows how to use the AFATDS for a Fire Support Element in conjunction with the Military Decision Making Process (MDMP). Section two has step-by-step instructions and procedure for the AFATDS with inputs that was obtained from the MDMP.
    c. **Chapter 3.** AFATDS and Field Artillery Support Plan. Chapter 3 provides two sections; section one shows how to use the AFATDS for a Field Artillery Battalion staff in conjunction with the Military Decision Making Process (MDMP). Section two has step-by-step instructions and procedure for the AFATDS with inputs that was obtained from the MDMP.
    d. **Chapter 4.** AFATDS Fire planning and Schedule of Fires. Chapter 4 provides two sections; section one shows the relationship of targeting to the MDMP. Section two has step-by-step instructions and procedure used to develop, schedule and execute fire plans.
3. **Conventions used in this publication.** This publication is procedure oriented. Where appropriate, fundamental information is provided at the beginning of the chapter that supports the tasks that follow. This information is in paragraph form. Specific tasks that follow are, for the most part standalone and complete.

EXAMPLE

Procedure DB1: Display the Current Situation. This Procedure opens and displays the Current Situation Menu Bar and map.		
Step	**Action**	**Result/Explanation**
1.	Click Situation, Current.	The Current menu bar displays and a Current tab is added to the AFATDS map.
The first time the AFATDS tab map displayed, the World Vector Shoreline map displays the entire world. After a database is constructed and the Current situation is displayed, the map is scaled to and centered on data stored in the Map, Map Setup window. See Procedure DB2 for details.		

Fonts. Fonts are used to indicate information as follows:
Italics are used to provide notes and directions.

Chapter 1.
AFATDS and Basic Planning Functionality.

Chapter 1 describes the AFATDS and its basic planning functionality.

Section I provides an overview of AFATDS and its Planning functionality.

Section II Describes, in detail, the basic steps executed to build a plan.

Section I. AFATDS Basic Planning Overview.

Plans and orders usually reflect the results of a problem solving process in which various alternatives are considered and the most viable selected. The plan is a means to coordinate and synchronize efforts so mission objectives can be achieved with the resources and time available. Plans are prepared in advance of an operation while Orders are used to execute the plan, respond to unforeseen events, and keep the plan on track.

FM 101-5 (or Current doctrine) describes five categories of Plans, two categories of Orders and five types of Combat Orders. Although AFATDS can practically support any of these, its tools are focused on supporting Five-Paragraph Operational Plans, Combat Orders, and Operations Orders used in the planning and execution of Fire Support. Planning can also be a collective iterative effort during which draft plans are disseminated, feedback evaluated and incorporated, decisions made and final plans distributed for execution. AFATDS provides tools supporting the decision process, documentation, distribution, and implementation of plans or orders.

In AFATDS, planning starts with the evaluation and selection of a maneuver Course Of Action (COA). Each Plan can have up to 99 Phases; by default every Plan will have at least one Phase. Each Phase can have up to three COA's, though none are required or provided by default. Each COA may contain its own guidance and unit task organization (e.g., differing FS & FA Attack Methods, org for combat, Target Guidance, etc.).

Before the draft Plan can be sent to subordinates for feedback, one COA must be selected for each Phase that has one or more associated COA's. AFATDS provides a method - based on rounds-expended, simplicity, supportable tasks, etc. - to compare COA's. This COA-selection decision aid employs common planning assumptions, such as unlimited ammunition, a constant unit location for the Phase, etc., that provides a common basis for comparison.

NOTE

AFATDS uses a Master Plan (Plan Name) Target List (MPTL) associated with each Phase of a Plan and Current to track all instances of each target generated or received into the system from all target lists, series, groups, individual Fire missions, etc. An operator should never delete targets or execute the Target duplication capability and delete targets from the MPTL. If you delete targets from the MPTL or execute a duplication check and delete them they will be deleted from whatever list, series, group or other action you used to generate the target. It is recommended that operators that open the MPTL exercise extreme caution in handling the list.

Section II. AFATDS Basic Planning Procedures.

CP 1. Create a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create a plan.

Procedure CP1. Create a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar, Select Situations.	Situations Drop Down window displays.
a.	Select New Plan.	Basic Plan information window displays.
2.	Enter data in the Basic Plan Information window.	
a.	Enter Plan Name.	20 character limitation.
b.	Map Series.	Text field allows the operator to specify the mapping information used with the Plan (400 character limitation) for example map sheet name, number, series name, number, and scale located in margins of the map
c.	Created by.	Field defaults (grayed out) to OPFAC Master Unit List (MUL) name, not input by the operator.
d.	Enter Time Zone.	A thru Z (except J)
e.	Phase.	View only field displays the number of the phase being viewed. No operator input required.
f.	Enter Plan Alias.	Allows TACFIRE devices to send AFATDS information for this Plan. Six character limitation.
g.	Time Effective.	Ddhhhhzmmmyy (010600ZJUN02), this is the time the plan will become effective
h.	H-Hour.	Ddhhhhzmmmyy (Reference use)
i.	Friendly Situation drop down menu.	Select Current, New, SOP or Copy From. Current- will import the current situations friendly graphics and units into the plan (recommended). New- will require the operator to create units and graphics. SOP- default selections required DO NOT USE. Copy From- allows the operator to copy friendly units and graphics from an existing plan.

Procedure CP1. Create a Plan (cont).		
Step	**Action**	**Result/Explanation**
j.	Enemy Situation.	Select Current, New, SOP or Copy From. Current- will import the current situations enemy graphics and units into the plan. New- will require the operator to create enemy units and graphics. SOP- default selections required DO NOT USE. Copy From- allows the operator to copy enemy units and graphics from an existing plan.
k.	Text.	Select New, SOP or Copy From. New- will require the operator to create operational text. SOP- default selections required DO NOT USE. Copy From- allows the operator to copy operational text from an existing plan.
l.	Map Mod.	Select Current, New, SOP or Copy From. Current- will import the current situations Map Mod into the plan. New- will require the operator to create a Map Mod. SOP- default selections required DO NOT USE. Copy From- allows the operator to copy a Map Mod from an existing plan.
m.	Map Setup.	Select Blank, Current, New, SOP, And Copy From or Select... Current- will import the current situations Map Setup into the plan. New- will require the operator to create a Map Setup. SOP- default selections required DO NOT USE. Copy From- allows the operator to copy a Map Setup from an existing plan. Select displays the Select Map Setup window and allows the operator to select a saved map setup.

Procedure CP1. Create a Plan (cont).		
Step	**Action**	**Result/Explanation**
n.	Guidance Set.	The operator can select from the following options: Target, FS Attack System, Unit and Sensor, FA Attack Methods or C3. The selection made will change the Guidance and Guidance Source fields to the right.
1)	In the Guidance Source field the operator can then select Current, SOP or Copy from…	Current- will import the current Guidance into the plan. SOP- default selection. Can be used as a shell to develop new guidance. Copy From- allows the operator to copy Guidance from an existing plan.
3.	Select OK.	Basic Plan information window closes.
Plan Information is saved in the Select Plan and Phase window. To review the Plan select Situation > Open Plan.		
4.	Low level Alert message received.	
a.	Select Low level alert.	Low level alert List window displays.
b.	From the Low level Alert List window highlight the GM Plans Notification Alert and select view.	GM Plans Notification message is received. Message reads: DTG: ddhhhhzmmmyy Creation of Plan: NAME Phase: # COA: # has completed successfully.
c.	Select OK, Print… or Help.	

CP 2. Open a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active open a plan. A Plan must have been created and saved prior to opening.

Procedure CP2. Open a Plan		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar, Select Situations > Open Plan.	Select Plan and Phase window displays.
2.	Highlight the Plan and Phase you wish to open. Select OK.	Plan Toolbar populates the AFATDS workspace; an additional Joint Mapping Toolkit (JMTK) tab opens displaying the Plan Map area.

CP 3. Delete a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active delete a plan.

Procedure CP3. Delete a Plan		
Step	**Action**	**Result/Explanation**
1.	On the Main Menu Bar select, Situations > Open Plan.	Select Plan and Phase window displays.
2.	Highlight the plan you wish to delete.	
a.	Select the Delete key once the plan is highlighted.	Displays confirm delete window.
b.	Select Delete button.	Plan is deleted.
4.	Low-level Alert message received.	
a.	Select Low level alert.	Low Level Alert List window displays.
b.	From the Low level Alert List window highlight the GM Plans Notification Alert and select view.	GM Plans Notification message is received. Message reads: DTG: ddhhhhzmmmyy Deletion of Plan: NAME Phase: # COA: # has failed!
5.	Select OK, Print… or Help.	
** In order to delete a Plan the Plan must have a COA selected. If no COA has been selected in the plan the "Select Plan and Phase window" delete button will remain grayed out.*		

CP 4. Close a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active close a plan.

Procedure CP4. Close a Plan		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window, select Planning > Exit Plan.	Confirm Exit window displays.
2.	Select Exit on the confirm Exit window.	JMTK map tab titled with Plan name closes, Plan Name Phase Number toolbar closes.

CP 5. Create a New Phase in an Existing Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create a new phase in an existing plan.

Procedure CP5. Create a new phase in existing plan		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar select Situation > Open Plan.	Select Plan and Phase window displays.
2.	Highlight the Plan name you want to make a new phase for.	New Phase and Delete button activate.
a.	Select the New Phase button	Basic Plan Information window displays.
In order to make a new phase for an existing plan, a COA must have been selected for the Plan. If a COA has not been selected the New Phase button will be grayed out. The last phase number of the plan must be selected to enable the new phase button. For example if Plan IRON has 2 phases you can not highlight Iron and phase 1 to make a new phase, phase 2 must be selected.		
3.	Modify the Basic Plan Information window by inputting information as required.	See Procedure CP 1.
a.	Select OK.	Select Plan and Phase window displays.
The new phase will not display in the phase window. To display the new phase the Plans and Phase window must be refreshed. To refresh the window highlight SOP then reselect the plan you made the new phase for.		
4.	Select Low level alert.	Low Level Alert List window displays.
a.	From the Low Level Alert List window highlight GM Plans Notification.	GM Plans Notification message is received. DTG Creation of Plan: NAME Phase: # COA: # has completed successfully.
Once a new Phase has been input for a plan the phase prior will be locked.		
b.	Select OK, Print… or Help.	

CP 6. Delete a Phase in an Existing Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active delete a phase in an existing plan.

Procedure CP 6. Delete a phase in an existing plan		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar select Situation > Open Plan.	Select Plan and Phase window displays.
2.	Highlight the Plan name and phase you want to delete in sequence.	New Phase and Delete button activates.
a.	Select the Delete button.	Confirm Delete window displays.
3.	Select the Delete button on the Confirm Delete window.	Phase is deleted. Low-level message received.
4.	Select Low level alert.	Low level alert List window displays.
	From the Low level Alert List window highlight GM Plans notification and select View.	GM Plans Notification message is received. Message reads DTG Deletion of Plan: NAME Phase: # COA: # has failed
b.	Select OK, Print… or Help	

Create and Accesses Plan Introduction.

AFATDS gives the Commander, Fire Support Officer, and other staff members the ability to develop, save, print, and send a 5 paragraph OPORD/OPLAN with all attachments. This OPORD can be refined, modified, and electronically sent to higher headquarters and subordinate units. This functionality can also be used to send warning (WARNO), fragmentary (FRAGO) and movement orders.

Each AFATDS Plan has an associated global written plan; i.e. the written plan applies to all Phases within the Plan. The written plan may consist of the following:

a. One five-paragraph document named "Operation Order" (OPORD). The OPORD may have associated annexes.
b. Multiple annexes differentiated by a name of up to 30 characters. Each annex may have associated appendixes.
c. Multiple appendixes differentiated by a name of up to 30 characters. Each appendix may have associated Tabs.
d. Multiple tabs differentiated by a name of up to 30 characters. Each tab may have associated Enclosures.
e. Multiple enclosures differentiated by a name of up to 30 characters.
f. One document named "Field Artillery Support Matrix" (FASM).
g. One document named "Fire Support Execution Matrix" (FSEM).

CP 7. Create and Access Plan Text.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active access a plan text.

Procedure CP 7. Create and Access Plan Text		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar, select Situation > Open Plan…	Select Plan and Phase window displays.
a.	From the Select Plan and Phase window, highlight the Plan and select OK.	Plan Name Phase Number toolbar and JMTK Plan name tab will populate the AFATDS.
2.	From the Plan toolbar select Planning > Text > Index…	Text Index window displays. Default Text entries are: a. Operation Order. b. Fire Support Annex. c. Field Artillery Appendix.
Remember the written plan hierarchy, OPORD has Annexes, Annex's have Appendix's, Appendix's have Tabs and Tabs have Enclosures. So by selecting the Field Artillery Appendix and selecting Options > New, a Tab will appear in the Plan Text window Text field.		
a.	From the Text Index window, highlight the text you wish to Access (i.e. Operation Order), select Options > Edit.	Plan Text window displays.

Procedure CP 7. Create and Access Plan Text (cont).

Step	Action	Result/Explanation
3.	Input required information for the Text selected.	
a.	Text Field.	Text Field can contain up to 30 characters.

NOTE

The 30-character limit is imposed by interoperability with external systems. Care should be taken in establishing a standard naming convention that accommodates the full range of subordinate documents.

A doctrinal title such as "Enclosure 1 (map guide) to Tab A (Ammo Sites) to Appendix 6 (Pre-positioned Ammo) to Annex F (Fire Support) to OPORD 3-35" might be expressed as "E1_TA_Ap6_AxF_3-35". Whereas "Annex F Fire Support 3-35" would also be acceptable for the higher-level parent document, but might cause confusion when naming subordinate documents.

Care should be taken when sending commented documents to another OPFAC, as an exact match in the documentation name will replace the original at the receiving OPFAC. Continuing with the above example, if 2nd Battalion returns comments to DIVARTY, "E1_TA_Ap6_AxF_3-35_(2bn cmt)" would prevent an unintentional overwrite of the original document, clearly identifies the document under comment, clearly identifies the source of the comment and only uses a 28 character name.

Naming is also important because non-AFATDS systems most likely cannot maintain the association between parent and child documents.

If you name the first Appendix in each of the ten Annex's "Appendix 1" and send each Annex (which sends all of its child documents) to a non-AFATDS system. At the receiving end they will likely only see the last Appendix 1; each having replaced the one prior. The same holds true for AFATDS receipt of same name documents from other systems. However, within AFATDS devices the parent child relationship of plan documents is maintained during the transfer process.

b.	Heading Title.	Text field can contain 100 characters.

NOTE

Heading Title is IMPORTANT to input, for example if the Plan text you are working on is a Fire Support Annex, the operator should then input FS Annex to OPORD "Name".

If the operator fails to do this and the Text is printed there will be no title for the data, only the paragraphs associated with the Annex!

c.	Map Series.	Text field allows the operator to specify the mapping information used with the Plan (400 character limitation) for example: map sheet name, number, series name, number, and scale located in margins of the map.
d.	Issuing Headquarters.	Defaults to Local OPFAC name but can be edited, 20 character limitation.
e.	Place of Issue.	Physical location of the issuing HQ. 40 character limitation.

Procedure CP 7. Create and Access Plan Text (cont).		
Step	**Action**	**Result/Explanation**
f.	Classification.	Used to enter highest security classification of data in document. 20 character limitation.
g.	DTG.	Defaults to time Plan text is opened can also be edited. ddhhhhzmmmyy format.
h.	Time Zone.	A thru Z (except J). Defaults to Z can also be edited.
i.	Paragraphs.	Allows the operator to edit or copy from another text if previously made.
1)	Highlight the paragraph you wish to input data to and select Edit.	Paragraph Text window displays. Default text entries are in the paragraphs but can be edited.
2)	From the Paragraph Text window select Insert.	Drop down menu that allows the operator to select the following data to be entered into the paragraph listed (A through k).
2a)	CONOPS guidance.	Displays CONOPS guidance in text format by unit Id, primary backup and secondary backup. CONOPS Guidance will be pulled from the current situation and cannot be accessed from the planned situation.
2b)	CSR Guidance.	Imports in text format the CSR Guidance (supply rate) by caliber and munitions type: • 105mm • 155m • 203mm • MLRS • 81mm • 107mm • 120mm
2c)	MET Guidance.	Imports in text format the MET Guidance input by the operator in the plan by unit. Specifies type and frequency of MET.
2d)	Movement Guidance.	Imports in text format the Movement Guidance input by the operator in the plan. Specifies by rank the priority of movement.
2e)	Reporting Guidance.	Imports in text format the Reporting Guidance input by the operator in the plan. Specifies critical supply levels to report.

Procedure CP 7. Create and Access Plan Text (cont).		
Step	**Action**	**Result/Explanation**
2f)	Special Target Allocation Guidance.	Imports in text format the Special Target Allocation Guidance input by the operator in the plan. Specifies the number of special missions a given unit is to receive during a plan and phase.
2g)	Survey Guidance.	Imports in text format the Survey Guidance input by the operator. Establishes the units receiving survey support by rank.
2h)	Organization for Combat.	Imports in text format the Organization for Combat developed in the plan and phase.
2i)	Target List.	Imports Target list associated with the plan.
2j)	Fire Plans.	Imports Fire Plans associated with the plan.
2k)	Schedules.	Import Schedules associated with the plan.
NOTE *The selected data will insert at the cursor location in the paragraph text field.*		
j.	Footing.	Data is printed at the bottom of each page, normally used for signature blocks.
4.	Select OK.	Plan Text window closes and any changes made are saved.
a.	Select Print…	Plan Text window and its Paragraphs will be sent to a Print Settings window for printing.
b.	Select Revert.	Allows the user to discard any changes made to the entries of this window and any changes to paragraph text. Data will revert to the data present when the window was opened.
c.	Select Cancel.	Allows the user to close the window and save changes to paragraph text but not changes to the Plan Text window.

CP 8. Receive and View a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active receive and view a plan

Procedure CP 8. Receive and View a Plan		
Step	**Action**	**Result/Explanation**
1.	Higher Headquarters has sent a Plan to your OPFAC. Low-level alert occurs, select the Low-level Alert.	Low-level alert list will display.

Procedure CP 8. Receive and View a Plan (cont).		
Step	**Action**	**Result/Explanation**
a.	Highlight message, for sent plan. Message should read “Received Plan Notification” and select > View.	Alert Message window displays.
b.	Alert Message will read Plan “Name” received ready to preview. Select OK	User okays out of Alert Message and Low level Alert List window. User can delete the Low Level Alert if desired.
2.	From the Main Menu Bar Select Situations > Received Plans/Current	Received Plans Current window displays.
a.	In the Received Plans Current window highlight the plan name that was sent to your OPFAC, and then select Preview.	Received Plan window displays.
3.	From the Received Plan window the operator can preview all data sent. The window consist of the following fields: a. Plan name *b.* Source unit ID: c. Phase # d. COA # e. Guidance Type: f. Geometry Type: g. Text Type: h. Enemy Units window: i. Friendly Units window:	 OPFAC that sent the data. Scrollable window containing all guidance’s sent with the plan. Scrollable window containing all geometry’s sent with the plan. Scrollable window containing all text (OPORD, FS Annex, FA Support Plan etc.) sent with the plan. Allows operator to view enemy units sent in the plan. Allows operator to view friendly units sent with the plan.
Operator views all data sent by selecting the View button associated with the Data. *Units can be previewed by name only.* *Operator can keep the viewed data or delete the data by selecting the Delete button associated with it.*		

Procedure CP 8. Receive and View a Plan (cont)		
Step	**Action**	**Result/Explanation**
4.	After review operator can: Okay the window, which will save any, changes (deletions) made.	The Received Plan Window closes.
b.	Send Received Plan.	Send to window displays.
c.	Save Received Plan.	Plan Saves to database and is removed from Received Plan window.

CP 9. Implement a Plan.

Conditions: Given an AFATDS workstation which is activated and with a plan that has been received at the OPFAC. The operator must review and save prior to implementing.

Procedure CP 9 Implement a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar select, Situation > Implement Plan.	Select Plan and Phase window displays.
2.	From the Select Plan and Phase window, highlight Plan name and phase > OK.	Implement Plan window displays.
Operator can change H hour for plan implementation and select the information type that he wants to implement for example Information Type Guidance's, Category type: Targets can be selected. *At this time the operator can select all of the plan or categories of the plan to be implemented.*		
3.	From the Implement Plan window under Information type select All Data.	Category and Subcategory fields display no information. This is because all data associated with the plan will be implemented.
4.	From the implement plan window select Implement.	Confirm Implement window displays.
a.	Select Cancel.	Confirm Implement window closes, plan is not implemented
b.	Select Implement.	Confirm Implement window closes, all data associated with the plan is transferred to the current situation.
Low Level Alerts will be received once the plan is implemented. The alerts will provide the operator with changes made to the current situation at which time the operator can review and delete if desired.		

CP 10. Transfer a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active. A Plan must be Created and a course of action selected for the plan to be transferred.

Procedure CP 10 Transfer a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar select Situations > Transfer Plan…	Select Plan and Phase window displays.
2.	From the Select Plan and Phase window, highlight the plan and phase and select OK.	Send Plan window displays.
3.	From the Send Plan window, next to the Transfer Mode text select Comm. or Leave the Transfer Mode to Archive and select Archive (step a).	Enables the Information type, Category and Subcategory windows. Export Situation Window displays.
a.	From the Export Situation window, highlight Archive Device Name.	
b.	From the Export Situation select Export.	All data from the plan is sent to the archive device. Operator receives a Low Level Alert.
If the operator selected Comms he can specific pieces of information, category and subcategories to send or the operator sends all of the data. *Information Types consist of: Guidance's, Units, Targets, Geometries and Text.*		
4.	From the Send Plan window, Information Type: drop down menu select All Data.	Category and Subcategory fields display no information. This is because all data associated with the plan will be implemented.
5.	From the Send Plan window select Send…	Send To window displays.
a.	In the Send to window the operator can select a unit and or use the distribution list.	Send To OK button enables.
b.	Select OK.	Plan is transferred. Low Level Alert is received.

CP 11. Compare a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active a minimum of two plans are required to do the comparison.

Procedure CP 11 Compare a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar Select Situations > Compare Plans…	Compare Plans window displays.
a.	Highlight the two Plan names that you wish to compare and select OK.	Plan comparison window displays. Measures of Effectiveness (MOE) Statistics are displayed for comparison for each plan.
b.	From the Plan Comparison window the operator can select Weighting Factors for the Comparison: 1. Tubes in Sector 2. Massing Capability 3. Rounds Required 4. Task supportable 5. Simplicity 6. System utilization	See Appendix A
By adjusting the sliding bars from a value of 1 to 100 the Comparison results (in the Graphic Display Chart at the bottom of the window) will change.		
2.	Once the Weighting Factors are set to the operator's requirements select Calculate.	Results Graphic Chart changes to reflect Weighting Factors.

CP 12. Import a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active import a plan.

Procedure CP 12 Import a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar select Situation > Import Plan…	Import Situation window displays.
2.	From the Import Situation window highlight the archive device name.	In the Import Situation window the files window will populate with data on the archive device.
a.	Highlight the file you wish to import and select Import.	Import Situation window closes. Operator receives a Low Level Alert. See CP 8 Receive and View a Plan.

Chapter 2.
AFATDS and the Military Decision Making Process.

Chapter 2 describes the AFATDS and its uses in the Military Decision Making Process (MDMP).
- Section I provides an overview of AFATDS Fire Support Planning Procedures for the MDMP.
- Section II. Describes, in detail, the steps executed at the BDE FSE to assist in products resulting from a MDMP.

Section I. AFATDS and the MDMP.

The MDMP (Table 2-1) is an adaptation of the Army's analytical approach to problem solving and is a tool that assists the commander and staff in developing a plan. FM 5-0 (FM 101-5) details the steps of the MDMP. As a member of the brigade staff, the FSO plays a crucial role in the MDMP both as the staff FS expert and as a member of the targeting team. This chapter will trace AFATDS Fire Support Planning Procedures to Steps in the MDMP.

Table 2-1 Military Decision-Making Process

INPUTS	MDMP STEP	OUTPUTS
• Mission received from higher HQ or deduced by the commander/staff	**Receipt of Mission**	• Cdr's initial guidance* • Warning order (WARNO) 1
• Higher HQ order/plan/IPB • Staff estimates • Facts & Assumptions	**Mission Analysis**	• Initial IPB products • Restated mission* • Cdr's intent* • Cdr's guidance* • WARNO 2 • Staff products • Battlefield framework • Preliminary movement
• Restated mission • Cdr's guidance • Cdr's intent • Staff estimates & products	**Courses of Action (COA) Development**	• COA statements & sketches
• Enemy COA • COA statements & sketches • Staff COA	**COA Analysis (Wargame)**	• Wargame results • Task organization • Mission to subordinate units • CCIR

Table 2-1 Military Decision-Making Process (cont.)

INPUTS	MDMP STEP	OUTPUTS
• Wargame results • Establish criteria	**COA Comparison**	• Decision matrix
• Decision matrix	**COA Approval**	• Approved COA* • Refined Cdr's intent* • Specified type of order* • Specified type of rehearsal* • HPTL* • WARNO 3 (as required)
• Approved COA	**Orders Production**	• OPLAN/OPORD*

* Responsibility of the maneuver commander. CDR = commander

The three most powerful tools that are offered by AFATDS planning functionality are:

1. Command support relationship changes. Units that are imported from the current situation can have their command support relationships changed so that when the plan is implemented they will take effect.
2. Guidance changes. Guidance's can be manipulated to support the change in mission so that when the plan is implemented the new guidance's take effect.
3. Graphics changes. It is recommended that graphics be built into the plan from the current situation. This allows the operator to edit changes to the graphics or delete them if they no longer are necessary. When the plan is implemented the changes will take effect.

Planning functionality also allows the operator to make COA/Plan comparisons based off of relative values calculated. This allows the operator to make quick estimates and make staff recommendations based off of the AFATDS Calculations.

Table 2-2 MDMP and AFATDS steps

MDMP STEP	INPUTS	ACTIONS	AFATDS ACTIONS
Receipt of Mission and Mission Analysis	Higher HQ WARNO or OPORD.	Understand higher maneuver and Fire Support Plan. Identify specified and implied tasks.	Chapter 1, Procedure CP 8 "Receive and View a Plan". Chapter 1, Procedure CP1 "Create a Plan.
	OUTPUT		**AFATDS OUTPUT**
	Initial WARNO upon mission receipt. Initial FS rehearsal guidance.		Chapter 2, Procedure FSP 5 "Create and Send Warning Order with AFATDS".

After receiving a WARNO/OPORD from their higher headquarters the operator will then create a plan using the information received and standard operating procedures developed by the unit. The FSCOORD/FSO must fully understand the next two higher headquarters mission and intent and have a detailed understanding of the higher headquarters concept of fires.

Table 2-3 MDMP and AFATDS steps

MDMP STEP	INPUTS	ACTIONS	AFATDS ACTIONS
Receipt of Mission and Mission Analysis	Facts from FS assets. Facts from higher, lower, and adjacent FSE's. IPB Products.	Translate status of FS assets into capabilities /limitations. Conduct FS Staff Estimate -organize and analyze facts. Analyze effects of IPB on FS.	Chapter 2, Procedure FSP 1 "Update Status from a FS System". Chapter 2, Procedure FSP 8 "Input Friendly Situation into a Plan".
	OUTPUT		**AFATDS OUTPUT**
	Provide FSO with facts for mission Analysis.		Printed Fire Support systems status.

The operator must identify what resource has been given for planning of the mission from the OPORD. An updated fire support systems status should be used for mission analysis, which can be maintained at the OPFAC or printed for reference.
Subordinate Fire Support Elements are input into the friendly situation. For example 1st Brigade would place its subordinate TF in the friendly situation. Friendly situation is a key-planning step and is required for Organization for Combat, which will be used later in the plan.

Table 2-4 MDMP and AFATDS steps

MDMP STEP	INPUTS	ACTIONS	AFATDS ACTIONS
Receipt of Mission and Mission Analysis	Enemy COA from S2. High value targets (HVT's) by phase or critical event.	Develop draft Essential Fire Support Tasks (EFST). Identify FS related Commanders Critical Information Requirements (CCIR). Obtain Commander's initial targeting guidance. Identify FS constraints/ restrictions.	Chapter 2, Procedure FSP 9 "Input Enemy Situation into a Plan". Chapter 2, Procedure FSP 2 "Input an Enemy Order of Battle into a Plan". Chapter 2, Procedure FSP 3 "Input HVTL into a Plan". Chapter 2, Procedure FSP 4 "Develop Draft EFST's in a Plan". Chapter 2, Procedure FSP 17 "Input Fire Support System Task List Guidance". Chapter 2, Procedure FSP 15 "Input Field Artillery Restrictions into a Plan". Chapter 2, Procedure FSP 16 "Input Munitions Restrictions into a Plan".

Table 2-4 MDMP and AFATDS steps (cont.)

Receipt of Mission and Mission Analysis	**OUTPUT**	**AFATDS OUTPUT**
	FSCOORD portion of mission analysis brief. Recommended EFST's, Fire Support and Rules Of Engagement (ROE) guidance's. Fire Support Commanders Critical Information Requirement (CCIR) inputs. Commander's Approval of Initial EFST's or modifies. Gives other guidance. WARNO after mission analysis brief.	Modify Plan Text. Chapter 2, Procedure FSP 5 "Create and Send a Warning Order with AFATDS".

The enemy situation and order of battle will assist the operator in High Value Target development. AFATDS allows the operator to import HVT data into the High Value Target List guidance based off of enemy situation (This can be helpful in time constrained planning).

Modifying planned text documents to reflect draft EFST's, Guidance's; ROE and CCIR should be input as they are developed. The creation of additional paragraph entries may be necessary. For example editing the "Execution" paragraph of the OPORD to fit the format used by the unit.

Each of the steps is critical to the building of a successful plan within AFATDS. The operator should ensure that all of these steps are completed in AFATDS before proceeding to COA Development or the data returned will not be accurate.

Table 2-5 MDMP and AFATDS steps			
MDMP STEP	**INPUTS**	**ACTIONS**	**AFATDS ACTIONS**
COA Development	See outputs from Receipt of Mission and Mission Analysis	Determine where to find and attack EFST formations. Identify HPT's in those formations. Quantify the effects for EFSTs. Plan methods for EFSTs.	Chapter 2, Procedure FSP 10 "Input Decision Support Template Graphics into a Plan". Chapter 2, procedure FSP 13 "Input High Payoff Targets List into a Plan".
	OUTPUT		**AFATDS OUTPUT**
	Draft Concept of Fires		None

Table 2-6 MDMP and AFATDS steps			
MDMP STEP	**INPUTS**	**ACTIONS**	**AFATDS ACTIONS**
COA Development	See outputs from Receipt of Mission and Mission Analysis	Allocate assets to acquire. Allocate assets to attack. Assist S2 in R&S development to support FS. Analyze relative FS combat power. Use battle calculus. Develop FSCMs.	Chapter 2, Procedure FSP 7 “Input Organization for Combat into a Plan”. Chapter 2, Procedures FSP 18 “Calculate Measure of effectiveness for a course of action”. Chapter 2, Procedure FSP 6 “Create a Fire Support Execution Matrix”.
MDMP STEP	**OUTPUTS**		**AFATDS OUTPUTS**
COA Development	For each COA developed: 1. Initial FSCMs. 2. Draft FSEM. 3. Concept of fires. 4. Draft Target (TGT) List/overlay. 5. Draft Targeting Synchronization Matrix (TSM) or modified TSM. 6. R&S Plan.		Friendly Graphics for COA input. Fire Support Execution Matrix developed for each COA. Concept of Fires developed for each COA. Enemy Order of Battle locations saved in plan.

Development of FSCM should support each maneuver COA. To input FSCM select the folder on the Plan Name and Phase number window entitled “Ge”. It is important for the operator to understand that when the plan is implemented its graphics will populate the current situation. If the current situational graphics were not imported when the plan was created they will remain in the current situation. Therefore it is recommended that the Friendly Situation be imported from Current when the plan is created in the basic plan information window and the graphics are edited to reflect the new plans situation.

For example: A Brigade FSE imports his current graphics into a plan and displays the map. In the plan TF 2-3 Zones of Responsibility (ZOR) will change in dimensions and another TF 3-7 ZOR will delete, as the TF will become the divisions reserve. The Bde operator selects TF 3-7 ZOR and edits it so that the H-Hour will have an Expiration Time of +1 (1 minute after H-Hour thus causing the geometry to expire and delete itself from the current situation). The operator then edits TF 2-3 ZOR and changes the coordinates to match

the new ZOR when the plan is implemented. When the plan is implemented the TF 2-3 new ZOR will appear reflecting the edited changes and the TF 3-7 ZOR will purge at H+1. Remember that H-hour is specified before implementing the plan in the *Implement Plan window*.

Had the Bde operator simply deleted TF 2-3 and TF 3-7 ZOR's and built a New ZOR for TF 2-3 the plan when implemented would have both the plans ZOR's and the Old Current situations ZOR's. This is extremely important for the operator to understand, if plans are implemented incorrectly the number of graphics will rapidly become unmanageable.

The other option is to delete all current graphics and then implement the plan. Loss of current data NFA's, RFA's, etc from the current situation is a concern.

Table 2-7 MDMP and AFATDS steps

MDMP STEP	INPUTS	ACTIONS	AFATDS ACTIONS
COA Development	See outputs from Receipt of Mission and Mission Analysis	Integrate triggers with maneuver COA.	Chapter 2, Procedure FSP 14 "Input Trigger Points into a Plan".
	OUTPUT		**AFATDS OUTPUT**
	Target Synchronization Matrix.		Rule sets prepared for input of trigger points when plan is implemented.

Rule sets for Trigger points cannot be built in a planned situation, however supporting geometry's can be put in place to support the triggers once the plan is implemented. The Decision Support Templates graphics can be used as a good starting point for establishing triggers in the plan.

Table 2-7 MDMP and AFATDS steps			
MDMP STEP	**INPUTS**	**ACTIONS**	**AFATDS ACTIONS**
COA Analysis and COA Comparison	See outputs from Receipt of Mission and Mission Analysis	Targeting decisions: finalize HPTL. Wargame the brigade COA & integrated FSP(s) vs. enemy COA's. Modify/refine inputs as required. Refine and test FSP.	Chapter 2, Procedure FSP 18 "Calculate Measure of Effectiveness for a Course Of Action".

MDMP STEP	**OUTPUT**	**AFATDS OUTPUT**
	Final Drafts: 1. Fires Paragraph. 2. FS Annex: 3. FSEM 4. TGT List - TGT Overlay 5. TSM or modified TSM (HPTL, AGM, TSS)	Chapter 2, Procedure FSP 11 "Develop a Fire Support Estimate Text in a Plan".

Table 2-7 MDMP and AFATDS steps			
MDMP STEP	**INPUTS**	**ACTIONS**	**AFATDS ACTIONS**
COA Approval and Orders Production **Staff Supervision**	See outputs from Receipt of Mission and Mission Analysis	Approval briefing. FSP briefed as part of each COA. FSCOORD presents analysis as part of staff.	Chapter 2, Procedure FSP 11 "Develop the Fire Support Estimate Text for a Plan".
	OUTPUT		**AFATDS OUTPUT**
	Commander: Selects, modifies or approves COA. FSCOORD: Issue WARNO as required. Finalize FS products. Issue FSP with OPORD. FS back brief. Manage refinement. Rehearsal.		Chapter 1, Procedure CP 10 "Transfer a Plan".

Section II. Inputs from the MDMP and AFATDS.

FSP 1. Update Status from a FS system.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active. Unit must exist as an icon on the current AFATDS situation. Communications must be established via direct or indirect with the unit or the unit must be receiving updates via Data distribution. A printer must be available for the step 3.

Procedure FSP 1. Update Status from a FS system		
Step	**Action**	**Result/Explanation**
1.	From the AFATDS Current Toolbar select Map > Find Symbol…	Find Symbol window displays.

Procedure FSP 1. Update Status from a FS system (cont).

Step	Action	Result/Explanation
a.	In the find Symbol window select the radial button next to the Friendly Units text.	Friendly Units display for selection in the lower sub pane.
b.	Select the FS System that you require status from.	On Overlay display populates with overlays that the unit can be displayed on.
c.	Select the overlay the unit exists on.	
d.	Select Apply or OK.	JMTK map moves placing unit selected in the center of the map area.
NOTE *Operator may be required to zoom into the map to see the unit depending on what zoom scale the current situation is in.*		
2.	Highlight the Unit icon in the current Situation by placing the cursor over the unit and clicking the number 1-trackball button.	Unit selected highlights. Light blue dot appears over unit location on the map.
a.	Click and hold the number 3-track ball button (far right).	Unit drop down menu appears.

Procedure FSP 1. Update Status from a FS system (cont.)		
Step	**Action**	**Result/Explanation**
b.	From the drop down menu scroll down and select "Request Status" and release the number 3 trackball button.	Paladin units will display a Request Status window allowing the operator to specify the information that is requested. The selections are: • Ammunition Data. • Computer Met. • Targets. • Registration Data. • Mask Data. • MVV Data. • Howitzer Status. MLRS Units will display a FCS Request Message window allowing the operator to specify the information that is requested. The selections are: • SPLL Status. • Point Data. • Masking Data. • Configuration. Non Paladin Cannon Units will send the standard Request Status and in return the operator will be updated with information available from the unit. Mortar, air, aviation, NSFS units will display a Send Status as a drop down selection. Data must be manually input by the responsible OPFAC and then transmitted to the requestor.
3.	Highlight the unit, click and hold the 3 (far right) trackball button.	Drop down menu displays.
a.	Select Edit from the drop down menu.	Unit Workspace window opens.
b.	Select the printer icon from the Unit workspace window or select Options > print from the drop down menu.	Print unit Information Window displays.
c.	From the Print Unit Information window, select the information for printing or "All" and select OK.	Print Settings window displays.

Procedure FSP 1. Update Status from a FS system (cont.)		
Step	**Action**	**Result/Explanation**
d.	In the Print Settings window select the printer to print the information, specify the number of copies, print preferences and select OK.	Printer information window displays. "Following print job submitted: printer name" Information Prints.

FSP 2. Input Enemy Order of Battle into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input the enemy order of battle from the intelligence preparation of the battlefield. Overlay is created that displays enemy units and a plan has been created and is open.

Procedure FSP 2. Input the Enemy Order of Battle into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Units > Workspace or the Units Folder icon in the toolbar.	Units Workspace window displays.
a.	From the Units Workspace window select Options > New > Create New Enemy Unit.	Create New Enemy Unit Window displays.
b.	Input the Units ID in the Unit ID Field.	Unit ID fields are limited to the following character numbers: Sec 1 Plt 4 Btry 5 Bn 7 Regt 6 Div 10
c.	Select OK*	Enemy Unit Data window displays.
2.	From the Enemy unit Data window Input the following data: - Location - Target Type - Number of platoons Role, Echelon, Function Reinforced or Detached, Lower Echelon ID and higher Echelon ID of the enemy icon.	Target type and number of platoon elements will directly affect the number of rounds required in the plan MOE statistics. Role, Echelon, Function, Reinforced/Detached, lower and higher echelon ID will all display on the map not in the enemy unit data window.

Procedure FSP 2. Input the Enemy Order of Battle into a Plan (cont).		
Step	**Action**	**Result/Explanation**
a.	Select OK.	Repeat steps 1 and 2 until the Enemy order of battle is built into the plan.

NOTE

**The Enemy Unit ID is the units' name, which can be obtained from the Intelligence Annex or your friendly local all knowing S-2.*

The Enemy order of Battle can be input directly from the Intelligence Preparation of the Battlefield. AFATDS will use this data to determine round required and number of targets each ZOR will be responsible for. Enemy graphics (boundary lines, axis of advance, obstacles, decision points etc.) should be input to assist the targeting team in the targeting process.

FSP 3. Input HVTL into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active and a plan open. During the intelligence preparation of the battlefield High Value Target's will be identified by phase or critical event. The AFATDS operator will input these HVTL into the plan by using the guidance functionality. High Value Targets input into the guidance of a plan will have a significant impact on the number of rounds required when MOE statistics are used to compare COA's.

Procedure FSP 3 Input a HVTL into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan name Phase number window select the Guidance Icon folder. or Select the drop down menu Guidance's > Workspace.	Guidance workspace window displays.
a.	Under the Target folder select the High Value Target (HVT) list Folder by double clicking on it.	High Value Target List displays.

Procedure FSP 3 Input a HVTL into a Plan (cont.)		
Step	**Action**	**Result/Explanation**
2.	Input High Value Targets by category into the list specifying the following information: Effects: - Neutralize (10%) - Suppress (3%) - Destroy (30%) - Specified (input %) When: - A (As Acquired) - I (Immediate) - P (Planned) - E (Excluded) Value- Value of 0 to 100 used in determining fire mission value.	Effects will have a significant impact on the number of rounds required when a MOE analysis is done in the plan for COA comparison. For example suppress will require fewer rounds than destroy.
a.	Select OK.	High Value Target List window disappears and changes are saved.

NOTE

If a COA is developed in a Plan where one enemy platoon of infantry is input and calculations are made in the Measure of Effectiveness (MOE) Statistics window. The HVTL will impact the number of rounds required based off of the Effects criteria input into the High Value Target List (Neutralize, Destroy, Suppress, Specify). An effect of "suppress" would return a 6 round requirement where as an effect of "destroy" will return a 28 round requirement.

Once the HVTL has been input select the TMM High Payoff Targets list and Clear the TMM. This will clear the Guidance brought into the plan initially, ensuring that the HVTL information input is correct for MOE Calculation.

FSP 4. Develop Draft EFST's in a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active…Use AFATDS Plan text to develop Essential Fire Support Task. Operator is familiar with the steps in Chapter 1,CP 7 "Create and Access Plan Text" and has a Plan created.

Procedure FSP 4. Develop Draft EFST's in a Plan.		
Step	**Action**	**Result/Explanation**

1.	From the Plan Name Phase Number window select Planning > Text > Index.	Text Index window displays.

Procedure FSP 4. Develop Draft EFST's in a Plan (cont).

Step	Action	Result/Explanation
a.	Highlight "Fire Support Annex", select Options, and Edit.	Plan Text window displays.
b.	In the Plan Text for Fire Support Annex window highlight "Execution" in the Paragraphs sub pane and select the Edit button.	Paragraph Text window displays.
2.	In the Paragraph Text window for the execution paragraph of the FS Annex address each EFST (counterfire, prep-fires, counterprep-fires, supporting JSEAD etc) In sequence of the operation.	The Paragraph Text window will not support simple graphics for EFST's sketches. It is suggested that the EFST text format be entered here: • Task (Objective, Formation, Function) • Purpose • Method (Priority, Allocation, Restriction) • Effect

NOTE

The operator must understand what data is input in the Execution paragraph of the Fire Support Annex. Format can vary by unit and SOP's.

See appendix B.

FSP 5. Create and Send a Warning Order with AFATDS.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active Operator uses AFATDS to issue subordinate OPFACS a Warning Order after Receipt of a Mission or Mission Analysis or COA approval. Operator must be familiar with Chapter 1, Procedure CP 7 "Create and Access a plan text".

Procedure FSP 5. Create and Send a Warning Order with AFATDS

Step	Action	Result/Explanation
1.	From the Plan Name Phase number window select Planning > Text > Index.	Text Index window displays.
a.	Highlight Operations Order, select Options > Edit.	Plan Text window displays.

2.	In the Plan Text window Text field Input WARNING ORDER.	
a.	Input data for the WARNO as per Chapter 1, Procedure “CP7 Create and Access a Plan Text”.	

Procedure FSP 5. Create and Send a Warning Order with AFATDS (cont).

Step	Action	Result/Explanation
3.	Exit the Plan once the WARNO information has been input and saved by selecting OK.	
	NOTE *Prior to sending Plan Text data a COA must be selected in the plan.*	
4.	From the Main Menu Bar select Situation > Transfer Plan.	Select Plan and Phase window displays.
a.	Highlight the Plan containing the WARNO data input and select OK.	Send Plan window displays.
b.	In the Send Plan window select Transfer mode as Comm.	Information type and category fields enable for selection.
c.	In the Information Type field Select Text.	Category field displays Blocks and Matrixes.
d.	In the Category field highlight the Blocks text.	Subcategory field displays available Blocks (default are Operation Order and Fire Support Annex) operator should see WARNING ORDER input from steps 1-3.
e.	In the Subcategory sub pane of the Send Plan window place a checkmark next to WARNING ORDER and select the Send button.	Send To window displays.
f.	Select the unit to send the WARNO data to and select OK.	OPFAC selected will receive Low Level Alert notifying receipt of Plan.

FSP 6. Create a Fire Support Execution Matrix.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active, and a working plan Input a Fire Support Execution Matrix into AFATDS. Friendly Situation has been input into the plan.

Procedure FSP 6.Create a Fire Support Execution Matrix.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Planning > Text > FS Execution Matrix.	FS Execution Matrix window displays.
NOTE *The FSEM will automatically display with the number of phases in the plan and the units that were input into the Friendly Situation of the plan.*		
2.	Input data into the Matrix Cell Text fields for the appropriate unit at the appropriate phase.	Matrix cells are limited to 64 characters, 4 lines of 16 characters.
3.	To add a unit to the FSEM select Options > Add Unit.	An additional Row is added to the bottom of the Matrix (Left side). A maximum of 20 units can be added to the FSEM.
a.	Input the name of the unit into the new Matrix Row.	17 character limitation in the Matrix Row field.
b.	Units can be removed from the FSEM by highlighting the unit then from the FS Execution window select Options > Remove unit.	Unit Matrix Row is removed from FSEM.
4.	To add a phase to the FSEM select Options > Add Phase.	New column is added to the right side of the Matrix. Operator must Input Phase text in the Phase ID field of the Matrix. This allows the operator flexibility to input Phase 1, 1a, Phase 2 etc. A maximum of 99 phases can be added to the FSEM.
a.	Input data into the Phase ID column added to the FSEM.	16 character limitation.

Procedure FSP 6.Create a Fire Support Execution Matrix (cont).		
Step	**Action**	**Result/Explanation**
b.	Phase ID's can be removed from the FSEM by highlighting the Phase ID then from the FS Execution window select Options > Remove Phase.	Phase Matrix, Phase ID is removed from FSEM.
5.	Enter Remarks into the Remarks Field.	600 character Limitation. Used to input additional information outside of the matrix (i.e. FSO Loc., Succession of FSO's, Refinement Cutoff time, Rehearsal Times, etc).
6.	Select the OK button.	FS Execution window closes and saves any changes made.
7.	Select the Print Button.	Print Settings widow displays allowing operator to specify printer. Printer must be setup from the Main Menu Bar > System > Configuration > Printers > Printer Services.
8.	Select the Cancel button.	Window closes without saving changes.

FSP 7. Input Organization for Combat into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input an organization for combat into a plan.

Procedure FSP 7. Input Organization for Combat into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Planning > FS Estimate.	Organization for Combat window displays.
2.	From the Organization for Combat window, task organize planned units from the units sub pane (left side of window) into the task organization matrix by mission assignment sub pane.	Units listed at the top of the columns populate based off of the friendly situation data for the plan and are limited to 9 units. Double arrows to the left of the name further identify Main Effort unit.

Procedure FSP 7. Input Organization for Combat into a Plan (cont).		
Step	**Action**	**Result/Explanation**
a.	Highlight a unit in the units sub pane, select the column of the unit the firing unit will support and select 60 the arrow to bring the unit into the correct mission assignment position.	Mission assignment positions are determined by friendly situation echelon data input into the Plan. An echelon of Corps will have the following labels to the right and bottom of the matrix: • Organic, OPCON or Attached, GSR and GS. An echelon of Division will have the following labels to the right and bottom of the matrix: • DS, R, GS and GSR. An echelon of Brigade will have the following labels to the right and bottom of the matrix: • Organic, Support Bn TF, XXXX (not used) and Sprt (Supports Brigade). An echelon of Battalion will have the following labels to the right and bottom of the matrix: • Organic, Support Co TF, XXX (not used) and Sprt (Supports the Battalion).
NOTE *The Organization for Combat table is the basis for determining all FS COA comparisons. Changes in this table will effect the MOE (Measure Of Effectiveness) Calculations under the Options selection of the window.*		
3.	From the Organization for Combat window select Options > Mission Assignment.	Mission Assignments window is displayed. The Mission Assignments window is a display only text field that provides the user a textual representation of the Organization for Combat assignments. A COA must have been selected in order for the window to display text. This is the same text data that displays if Organization for Combat is selected to be inserted into a Planned Text (i.e. Field Artillery Appendix, Paragraph 3, sub paragraph c. Organization for Combat, insert > Organization for Combat).
4.	From the Organization for Combat window select Options > Air Sorties Allocated.	This window is for entering the number of air sorties for units of type Other within a given Plan and Phase.

Procedure FSP 7. Input Organization for Combat into a Plan (cont).		
Step	**Action**	**Result/Explanation**
5.	Select OK.	Saves displayed data and closes Organization for Combat window.
6.	Select Cancel.	Closes window without saving any changes.
7.	Select Clear Matrix.	All firing Units that were input into the Matrix are returned to the Units List.

FSP 8. Input Friendly Situation into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input friendly situation into a plan.

Procedure FSP 8. Input Friendly Situation into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Planning > Situation > Friendly.	Friendly Situation window displays.
a.	Input the Echelon of the OPFAC into the Echelon field.	Echelons selections are: • Corps. • Division. • Brigade. • Battalion. This will impact the mission assignment that can be given to a unit in the Organization for Combat window when building and analyzing the Measure of Effectiveness in a plan.
2.	In the Friendly Situation window select the “Add” button under the Sector Name Sub Pane.	The Select Unit window displays.
a.	From the Select Unit window highlight the units to be considered for the Plan and select OK.	BDE FSE input your subordinate TF FSE. DIV FSE input BDE FSE etc.
3.	From the Friendly Situation window select the Main Effort pull down box and select the Main Effort unit for the phase of the plan.	AFATDS will identify the Main Effort Unit with double arrows preceding the unit’s name. Main Effort will affect Massing Capabilities.

FSP 9. Input Enemy Situation into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input enemy situation into a plan.

Procedure FSP 9. Input Friendly Situation into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Planning > Situation > Enemy.	Enemy Situation window displays.
2.	In the Enemy Situation window input the Echelon and Situation applicable.	Echelon selections are: • Front • Army • Division • Regiment Situation selections are: • Movement to Contact • Meeting Engagement • Attack/seize Sub Obj. • Hasty River Crossing • Deliberate River Crossing • Hasty Defense • Deliberate Defense • Withdrawal
NOTE *Enemy Situation will enable the High Value Target List > Options > Base on Enemy Situation. If selected in the guidance's this will enable a set High Value Target List based off of the situation specified here.*		
a.	Select OK.	Confirm Enemy Situation window displays.
b.	Select OK.	Confirm Enemy Situation window closes.

FSP 10. Input Decision Support Template Graphics into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input a DST graphics into a plan.

Procedure FSP 10. Input the Decision Support Template into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Geometry drop down menu and select Workspace. or Select the Geometry folder icon labeled “ge”(far right folder on toolbar).	Geometry Workspace/”Plan Name” window displays.
a.	In the Geometry Workspace/ Plan Name window select the Options drop down menu and select New. or In the Geometry Workspace/Plan Name window select the “New Icon”, far left page icon on the toolbar.	The New Geometry window displays.
b.	In the New Geometry window select and input the following Decision Support Template (DST) graphics: 1. Named Area of Interest (NAI). 2. Target Area of Interests (TAI). 3. Target Buildup Areas (TBA) as required. Naming convention should match the DST.	NAI should be input using Friendly Area > General Area.
2.	Once all geometries are built select Options exit on the New Geometries/Plane Name window.	New Geometries/Plan Name window closes.

FSP 11. Develop the Fire Support Estimate Text for a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active a minimum of two COA must have been developed and MOE statistics calculated for the operator to insert Plan Comparison and Decision Matrix.

Procedure FSP 11. Develop the Fire Support Estimate Text for a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Main Menu Bar select Situations > FS Estimate Text.	FS Estimate Text window displays.
NOTE *FS Estimate Text follows the same rules as Plan Text. Appendix, Annex's and Tabs cannot be added. This functionality is used to assist the FSO in COA Staff Estimate for Fires.*		
2.	Input Heading Title > Map Series > Issuing HQ > Place of Issue > Classification > Time Zone and Footing as per Chapter 1, Procedure CP7 "Create and Access Plan Text".	Paragraph sub pane headings are: • Situation and COA's. • Mission. • Analysis of COA. • Comparison of COA. • Recommendation.
3.	From the FS Estimate Text window highlight the Analysis of COA text in the Paragraphs sub pane and select Edit.	Paragraph Text window displays.
a.	From the Paragraph Text window select Insert > Plan Comparison.	Plan MOE Statistics display as text in the text field.
b.	From the Paragraph Text window select Insert > Decision Matrix.	Plan MOE Statistics display as text in the text field as Columns with X's representing a graph.
4.	From the Paragraph Text window select OK.	Paragraph Text window closes and FS Estimate Text window displays.
5.	From the FS Estimate Text window select OK.	FS Estimate Text window closes data is saved.

FSP 12. Develop a Target List for a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active develop a target list for a plan with a selected COA.

Procedure FSP 12 Develop a Target List for a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Target drop down menu and select Workspace. or Select the Target folder icon labeled “tgt”(far right folder on toolbar).	A Course of action must be selected prior. Target List: current active target list / Current window displays.
a.	In the left sub pane highlight the Plan Name Phase Number folder and Select the Create a New Target List icon. or Highlight the Plan name Phase number folder on tree and 3 (far right) trackball button and select New.	List name text field displays.
NOTE Create a New Target List (Brown icon with two green target reference point symbols) and Create New Air Support List (light blue icon with an aircraft silhouette) Icons activate.		
c.	Input unique target list name for plan.	30 character limitation.
d.	Select Create.	Target List: name /Plan name phase number window displays.
2.	From the Target List: name /Plan name phase number window Dropdown menus select Target > New. or Select Create new Mission Icon on toolbar (sheet of paper, far left icon).	Basic target info displays.

Procedure FSP 12 Develop a Target List for a Plan (cont).		
Step	**Action**	**Result/Explanation**
a.	Select OK.	The Basic Target window Information window disappears. The target can then be found under the list name it was created in.
NOTE *The operator needs to fill out the basic target window in accordance with unit SOP's and based on targeting results that will occur when war gaming the COA.*		

FSP 13. Input a High Payoff Target List into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input a high payoff target list into a plan.

Procedure FSP 13. Input a High Payoff Target List into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the TMM High Payoff Targets folder from the target tree.	Target Management Matrix displays.
a.	From the Guidance Workspace window double click on the TMM High Payoff Targets folder from the target tree.	Target Management Matrix displays.
2.	From the Target Management Matrix window Select a target category from the drop down menu.	13 target categories display. Selecting a category changes the subtypes displayed in the Non-High Payoff Targets or fields.

Procedure FSP 13. Input a High Payoff Target List into a Plan (cont).

Step	Action	Result/Explanation
a.	From each target category select the target sub types that will be come High Payoff Targets for the Plan. Highlight the target subtype in the Non-High Payoff Target sub field. To move the subtype from the Non-High Payoff Targets field to the High Payoff Targets field select the bold arrow to the left of the High Payoff Targets field.	High Payoff Targets are established.

NOTE

Each target entered into the High Payoff Target Category has further defining requirements which will establish when the target should be attacked:

- *A = As Acquired. Designates the target to be attacked as they are acquired during the execution of the plan.*
- *I = Immediately. Designates the Target to be fired immediately, this should be limited to a small percentage of the HPT input. To many immediate targets are disruptive and lower the efficiency of attack systems.*
- *P = Planned. Indicates the target should not be attacked now but should be planned for future firing (i.e. counter mobility program).*

Effects will establish the attack criteria used when the target is fired:

- *Suppress = 3%*
- *Neutralize = 10%*
- *Destroy = 30%*
- *Specified = % input by operator.*

Target Damage Assessment (TDA) if checked will require that the target have a target damage assessment after being fired.

Intelligence and Electronic Warfare (IEW) if checked will specify that the target should be routed to the established ASAS in Mission Info Routing.

Value will allow the operator to input an additional 1 to 100 value used in determining fire mission value these are established in relation to other HPT's.

b.	Select OK.	Target Management Matrix window closes and data input is saved.
c.	Select Print HPT.	High Payoff Targets are printed.
d.	Select Cancel.	Target Management Matrix window closes and no data are saved.

FSP 14. Create Trigger Points into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create new geometries to support trigger points into a plan.

Procedure FSP 14. Input Trigger Points into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Geometry drop down menu and select Workspace. or Select the Geometry folder icon labeled “ge”(far right folder on toolbar).	Geometry Workspace/”Plan Name” window displays.
a.	In the Geometry Workspace/ Plan Name window select the Options drop down menu and select New. or In the Geometry Workspace/Plan Name window select the “New Icon”, far left page icon on the toolbar.	The New Geometry window displays.
b.	In the New Geometry window select Friendly Area > General Area.	Naming convention should be in accordance with unit SOP.
c.	Select OK.	Geometry Information window displays.
d.	Operator inputs coordinates.	Operator inputs data for the geometry.
NOTE *Operator can specify H-Hour, Absolute and On Call for the geometry built.*		
2.	Once all geometries are built select Options exit on the New Geometries/Plan Name window.	New Geometries/Plan Name window closes.
NOTE *Trigger Point rule sets are established in the Current Situation once the plan has been implemented. The operator selects the Event Icon on the AFATDS Current window toolbar.*		

FSP 15. Input Field Artillery Restrictions into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input a FA restrictions into a plan

Procedure FSP 15. Input Field Artillery Restrictions into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the FA Restrictions folder from the System Preferences and Restrictions tree.	FA Restrictions displays.
2.	From the FA Restrictions window select Add.	Select Unit window displays.
a.	Select the unit to be restricted > OK.	Edit FA Restrictions window displays.
b.	In the Edit FA Restrictions window select shell and fuze to be restricted.	
c.	Max Volleys and Max Fire Units/Tgt can also be entered if desired.	
NOTE *It is recommended that the FDC input max volley and max firing units as it can adversely impact the massing of fires when required. As an example the FSE would input illumination as a restricted shell if the maneuver commander restricted its use for the operation.*		
d.	Select OK.	Edit FA Restriction window closes. Unit is updated in FA Restrictions window.

Procedure FSP 15. Input Field Artillery Restrictions into a Plan (cont).		
Step	**Action**	**Result/Explanation**
e.	From the FA Restrictions window select OK.	FA Restrictions window closes changes are saved.
NOTE *Units in FA Restriction window can be added, removed or edited at any time.*		

FSP 16. Input Munition Restrictions into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input ammunition restrictions into a plan.

Procedure FSP 16. Input Munition Restrictions into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the Munitions Restrictions folder from the System Preferences and Restrictions tree.	Munitions Restrictions displays.
2.	From the FS Munitions Restrictions List window select Add.	FS Munitions Restrictions window displays.

Procedure FSP 16. Input Munition Restrictions into a Plan (cont).

Step	Action	Result/Explanation
a.	In the FS Munitions Restrictions window the following information can be added: 1. FS System. 2. Munitions Category (cannot be edited before FS System is input). 3. Minimum Target Size. • Radius. • Length. • Width. 4. Min Dist from FLOT (m). 5. Min Target Strength. 6. Max TLE (m) 7. Max rnds. 8. Max Vlys. 9. Countermeasures (up to 12 categories of countermeasures can be selected). 10. Environmental (up to 12 environmental categories can be selected).	Data input will only effect the plan phase and COA number specified.
b.	Select OK.	FS Munitions Restrictions window closes. FS Munitions Restrictions List window displays.
c.	Select OK.	FS Munitions Restrictions List window closes.

NOTE

FS Munitions Restriction List window can be added, removed or edited at any time.

FSP 17. Input Fire Support System Task List in a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input a FS systems task list into a plan

Procedure FSP 17. Input Fire Support System Task List in a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the System Task List folder from the System Preferences and Restrictions tree.	FS System Task List window displays.
2.	From the FS System Task List window select New.	The FS Systems Task window displays.
a.	From the FS Systems Task window select the following options: 1. Rank (Operator Specified). 2. Target Category. 3. Target Type. 4. Within Geometry. 5. Min Radius. 6. Max Radius. 7. Min Strength. 8. Max Strength. 9. Engage with: • FS System. • Munition. • Unit 10 Not Engage with: • FS System. • Munition. • Unit.	See note below.

Procedure FSP 17. Input Fire Support System Task List in a Plan (cont).

Step	Action	Result/Explanation
	NOTE	
	Rules are automatically ranked when they are entered based on the number of specified parameters. The more parameters specified, the higher rank the rule. They are also ranked based on the sequence of input. For example, when two rules that have equal parameters the rule input first will take precedence. The operator has the option of specifying a ranking for a rule. When this is done the rule will also retain that rank until deleted. The operator specifying the rank overrides the parameter input. For example, if operational personnel decide that they want to attack all tank heavy with "Rocket/Missile". They enter the rule and give it a high ranking. Even though there may be other rules that apply to this target with a larger number of parameters, the higher ranked rule will be used. The same applies when restricting attack with the do not engage button. If the operator does not want a particular category or target type engaged he would specify that criteria and rank specify the rules ranking. What he would not want to do is specify "Do Not Engage" for each FS system (reason will be explained latter).	
	When the rules are used that apply to attack analysis, only the top five permissive and the top five restrictive rules are considered. This is where the ranking options play an important role in achieving the desired results. If a Restrictive rule and permissive rule are in conflict the restrictive rule will apply. As you can see, with the choice of 6 FS systems, the correct way to assure that a target is not attacked is to Select the Target Type, specify "Do Not Engage" (without selecting any FS system), and operator rank this rule higher than others. If you individually restrict each of the six FS system types the last rule entered would not be used by AFATDS.	
	In the FS system task the “Do Not Engage” selection is the criteria for selection of “Restrictive Parameters”. All other choices are considered as permissive. The selection is not only applicable to the selection of a unit or FS system, but is used based on the selected parameters. Do Not Engage Tank Heavy strength less than 10. The list is traversed from the top to the bottom until five restrictive and five permissive rules that meet the target parameters are identified (or the list is exhausted). There are some important items to consider: • *A selection of Category and not target types will result in selection of the rule based on its rank for all targets in that category.* • *When geometry is specified, the rule will be selected only if the received target falls in the area described by the geometry.* • *Rectangular targets will be converted to a circle (of equivalent area) for the radius checks.* • *The selection of a munitions category and not a specific unit or FS system will apply the rule against that category for all FS systems that have that category of munitions.*	
b.	Select OK.	FS Systems Task List window populates with input data.
c.	Select OK.	FS Systems Task List window closes and data is saved.
	NOTE *FS System Tasks List window can be edited, copied, deleted and cleared at any time.*	

FSP 18. Calculate Measure of Effectiveness for a Course of Action.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active calculate measure of effectiveness for a course of action.

Procedure FSP 18. Input Measure of Effectiveness for a Plan or Phase.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase number window select Planning > FS Estimate.	Organization for Combat window displays.
a.	From the Organization for Combat window select Options > MOE Statistics.	MOE Statistics window displays.
b.	Select Calculate in the MOE Statistics window.	MOE statistics are calculated for COA. For explanation of MOE Statistics see Appendix A.
2.	From the MOE Statistics window select Statistics > Task Supportable.	Task Supportable window displays. Tasks are listed by friendly situation units input.
3.	From the MOE Statistics window select Statistics > System Utilization.	System Utilization window displays allowing the operator to compare the percentage of FS Systems.
4.	Select OK.	The Organization for Combat window displays.
a.	In the Organization for Combat window select OK.	The Organization for Combat window closes.

NOTE

It is important to remember that MOE is based on the friendly and enemy situation input for a plan/phase. The AFATDS should have more then one COA build in the plan for a course of action comparison. After a COA comparison the operator must select a COA based on the data given. This COA comparison must be complete prior to any target list functions in a plan are done.

Chapter 3
AFATDS and the Field Artillery Support Plan.

Chapter 3 describes the AFATDS and its uses in the development of the Field Artillery Support Plan.
- Section I provides an overview of AFATDS, MDMP and the FASP.
- Section II. Describes in detail the steps executed at the Bn FA CP to assist in products resulting form a MDMP/FASP.

AFATDS and the FA Battalion MDMP.

The MDMP (Table 2-1) is an adaptation of the Army's analytical approach to problem solving and is a tool that assists the commander and staff in developing a plan. FM 5-0 (FM 101-5) details the steps of the MDMP. As a member of the brigade staff, the FSO plays a crucial role in the MDMP both as the staff FS expert and as a member of the targeting team. This chapter will trace AFATDS Fire Support Planning Procedures to Steps in the MDMP.

Table 3-1 Military Decision-Making Process.

INPUTS	MDMP STEP	OUTPUTS
• Mission received from higher HQ or deduced by the commander/staff	**Receipt of Mission**	• Cdr's initial guidance* • Warning order (WARNO) 1
• Higher HQ order/plan/IPB • Staff estimates • Facts & Assumptions	**Mission Analysis**	• Initial IPB products • Restated mission* • Cdr's intent* • Cdr's guidance* • WARNO 2 • Staff products • Battlefield framework • Preliminary movement
• Restated mission • Cdr's guidance • Cdr's intent • Staff estimates & products	**Courses of Action (COA) Development**	• COA statements & sketches
• Enemy COA • COA statements & sketches • Staff COA	**COA Analysis (Wargame)**	• Wargame results • Task organization • Mission to subordinate units • CCIR
• Wargame results • Establish criteria	**COA Comparison**	• Decision matrix

Table 3-1 Military Decision making Process (cont.)

INPUTS	MDMP STEP	OUTPUTS
• Decision matrix	**COA Approval**	• Approved COA* • Refined Cdr's intent* • Specified type of order* • Specified type of rehearsal* • HPTL* • WARNO 3 (as required)
• Approved COA	**Orders Production**	• OPLAN/OPORD*
* Responsibility of the maneuver commander. CDR = commander		

AFATDS Procedures and FA Battalion MDMP Steps Crosswalk.

The FA Battalion commander and staff should use the MDMP methodology as a guide for the battalions planning process. Section II of this chapter will outline the procedures used in AFATDS to assist the staff in the MDMP.

The three most powerful tools that are offered by AFATDS planning functionality are:

1. Command support relationship changes; units that are imported from the current situation can have their command support relationships changed so that when the plan is implemented they will take effect.
2. Guidance changes; guidance can be manipulated to support the change in mission so that when the plan is implemented the new guidance takes effect.
3. Graphics changes, it is recommended that graphics be built into the plan from the current situation. This allows the operator to edit changes to the graphics or delete them if they no longer are necessary. When the plan is implemented the changes will take effect.

Planning functionality also allows the operator to make COA/Plan comparisons based off of relative values calculated. Thus allowing the operator to make quick estimates and make staff recommendations based off of the AFATDS Calculations.

Table 3-2 MDMP/AFATDS Crosswalk.

MDMP STEP	INPUTS	ACTIONS	AFATDS ACTIONS
Receipt of Mission	• Higher HQ WARNO or OPORD, FSP, FASP • All available/updated internal & external data.	• Evaluate higher HQ information-mission/task/guidance focus. • Initiate staff estimates FS, FA Ops, Intel/TA, C2, CSS & data collection. • Identify draft CCIR. • Conduct time Analysis.	• Chapter 1, Procedure CP 8 “Receive and View a Plan”. • Chapter 1, Procedure CP1 “Create a Plan”.
	OUTPUTS		**AFATDS OUTPUTS**
	• Initial EFST.EFAT list. • Initial staff estimates & to FA Bn Cdr. • Draft CCIR/RFI. • Intel Timeline for MDMP & Rehearsals. • Initial Cdrs guidance. • WARNO.		Chapter 2, Procedure FA 3 “Create and Send WARNO”.

Table 3-2 MDMP/AFATDS Crosswalk.

MDMP STEP	INPUTS	ACTIONS	AFATDS ACTIONS
Mission Analysis	• Higher HQ (Mvr/FA) OPORD, FSP, FASP. • Facts from higher, lower, supported & supporting, & adjacent elements (to include FSE's). • IPB Products (MCOO, SITEMPS). • CCIR. • Enemy COA from S2. • HVT by phase or critical event. • Outputs from previous step. • Internal/external replies to CCIR/RFI.	• Understand 2 higher maneuver orders/FSP's & FASP's. • Identify specified & implied tasks. • Identify CCIR. • Organize and analyze facts. • Translate facts & status of FS/FA/TA assets into capabilities, limitations and constraints. • Analyze effects of IPB on FS/FA/TA. • Develop Draft EFST &/or EFATS. • Refine Staff estimates, FA Ops, Intel/TA, C2, and CSS. • Initiate TVA. • Identify potential wargaming & rehearsal aids. • Refine rehearsal plan. • Develop mission analysis brief.	Chapter 3, Procedure FA 4 "Update a Status of a FA Unit". Chapter 3, Procedure FA 1 "Develop draft EFATs in a plan".

MDMP STEP	OUTPUTS	AFATDS OUTPUTS
Mission Analysis	• Updated staff estimates: -Facts and assumptions. -Constraints and restrictions. -Critical shortage list. -Artilerrized IPB products. -CCIR, RFI. • Restated mission. • Specified & implied tasks. • Approved EFST's &/or EFAT's. • Cdr's guidance and intent. • Mission analysis brief.	Chapter 3, Procedure FA 3 "Create and Send WARNO".

MDMP STEP	INPUTS	ACTIONS	AFATDS ACTIONS
COA Development	• See outputs from Mission Analysis. • Higher HQ updates (Mvr/FA). • Internal/external replies to CCIR/RFI.	• Develop FA Bn COAs in synchronization with the Mvr/higher FA COA's. • Identify FS &/or FA decision points & firing unit/FC options. • Determine were to find and attack EFST/EFAT formations. • Identify HPT in those formations. • Quantify the effects for EFST/EFAT. • Plan D3A methods for EFSTs/EFATs to include trigger points. • Integrate triggers with Mvr/Higher FA COA. • Allocate assets to acquire and attack. • Develop draft targeting and fire plan products. • Identify FA/TA PA's, routes, movement & timing options. • Identify FA trains/CSS options (FA ammo distribution & resupply options). • Use battle calculus to test feasibility. • Refine R&S plan.	Chapter 3 Procedure.. FA 14 "Input Decision Support Template into a plan". FA 9 "Input Position Area into a Plan". FA 11 "Input routes into a Plan". FA 13 "Input Support Locations in a Plan". FA 15 "Input FA Preference table into a plan". FA 16 "Input FA restriction into a plan". FA 5 "Input Cannon attack methods into a plan". FA 6."Input Cannon immediate attack methods into a plan". FA 17 "Input Rocket/Missile Attack Guidance into a plan". FA 18 "Input Rocket/Missile Guidance into a plan FA 12 "Input movement guidance into a plan". FA 20 "Input Supplies reporting guidance into a plan". FA 7 "Input met guidance into a plan". FA 8 "Input survey guidance into a plan".

MDMP STEP	OUTPUTS	AFATDS OUTPUTS
	• For each COA developed: -COA statement and sketch. -Concepts of Fire. -Draft FSEM/FASM. -Draft target list/overlay. -Draft/modified TSM. -Change/difference in FS/FA guidance's, TSS, IP's, and fire order standards. -Basic schedule of fire requirements. -R&S plan differences. • Refined MCOO & SITEMP. • Wargaming aid.	Chapter 3 Procedure FA 2 "Create a Field Artillery Support Matrix"..

<table>
<tr><th>MDMP STEP</th><th>INPUTS</th><th>ACTIONS</th><th>AFATDS ACTIONS</th></tr>
<tr><td rowspan="3">COA Analysis and COA Comparison</td><td>• See outputs from previous step.</td><td>• Targeting decisions: Finalize HPTL and TSM.
• Wargame the FA Bn COA and FASP(s) vs. enemy COA.
• Modify /refine inputs required.
• Test and refine FSP &/or FASP.
• Finalize staff estimates FS, FA Ops, C2, Intel/TA, CSS.
• Finalize/coordinate draft target lists and schedule of fires.
• Refine/finalize CCIR.
• Prepare/modify draft FASP/FSP.</td><td>Chapter 1 Procedure CP7 “Create and access plan text”.</td></tr>
<tr><td colspan="2">OUTPUTS</td><td>AFATDS OUTPUTS</td></tr>
<tr><td colspan="2">• COA decision matrix.
• Refined MCOO and SITEMP.
• Detailed task organization.
• Refined staff estimates.
• Refined risk estimate.
• Refined CCIR & RFI.

Final Drafts
• Fires Paragraph.
• FSP/annex (DS units): FSEM, Target List/overlay, TSM or modified TSM.
• FASP, FASM, Fires schedule, RDO and R&S Plan.</td><td></td></tr>
</table>

<table>
<tr><th>MDMP STEP</th><th>INPUTS</th><th>ACTIONS</th><th>AFATDS ACTIONS</th></tr>
<tr><td rowspan="3">COA Approval</td><td>• See outputs from COA Analysis and COA Comparison.</td><td>• Conduct Mvr Bde/FA Bn approval briefing.
• FSCOORD/FSO presents analysis to Mnvr as a part of the staff.
• FA Bn XO/S3 presents analysis to FA Bn Cdr as a part of the staff.
• FSP/FASP briefed as part of each COA.
• Mvr Bde/FA Bn Cdrs direct changes and approve COA’s as appropriate.</td><td></td></tr>
<tr><td colspan="2">OUTPUTS</td><td>AFATDS OUTPUTS</td></tr>
<tr><td colspan="2">• Approved/modified FA Bn COAs (& Mvr/FS COAs for DS Units).
• Cdr/XO issues OPORD, FSP, FASP, and Guidance (format, coordination, addresses, timelines).
• FA Staff/FS back briefs.
• Issue final rehearsal guidance/information.
• Issue WARNO as required.</td><td>Chapter 3 Procedure FA? “Create and Send WARNO”.</td></tr>
</table>

<table>
<tr><th>MDMP STEP</th><th>INPUTS</th><th>ACTIONS</th><th>AFATDS ACTIONS</th></tr>
<tr><td rowspan="3">Orders Production</td><td>• See outputs from previous steps.</td><td>• Finalize staff and other inputs/products.
• Gather all inputs, prepare and quality check final FA/FS products.
• Verify receipt & understanding.
• Gather and evaluate lower/higher feedback and rehearsal results.
• Recommend postproduction changes and updates as necessary based on rehearsal results, feedback and METT-TC changes to the commanders’ decision.
• Prepare modified products, WARNO, FRAGO, to reflect changes and Cdrs decisions.</td><td></td></tr>
<tr><td colspan="2">OUTPUTS</td><td>AFATDS OUTPUTS</td></tr>
<tr><td colspan="2">• Issue OPORD/OPLAN, FSP, and FASP.
• Disseminate postproduction changes and updates via WARNO’s and FRAGO’s.</td><td>Chapter 1, Procedure CP 10 “Transfer a plan”.</td></tr>
</table>

FA 1. Develop Draft EFAT's in a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active. Use AFATDS Plan text to develop Essential Field Artillery Task (EFAT). Operator is familiar with the steps in CP7 Create and Access Plan Text and has made a Plan.

Procedure FA1. Develop Draft EFAT's in a plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Planning > Text > Index.	Text Index window displays.
a.	Highlight Field Artillery Appendix, select Options > Edit.	Plan Text window displays.
b.	In the Plan Text for Field Artillery appendix window highlight "Situation" in the Paragraphs sub pane and select Edit button.	Paragraph Text window displays. Operator inputs the situation for the FASP. Default format for this paragraph are: a. Enemy Forces. b. Friendly forces. c. Attachments and Detachments.
1)	Select Ok.	Plan Text window displays.
c.	In the Plan Text for Field Artillery appendix window highlight "Mission" in the Paragraphs sub pane and select Edit button.	Paragraph Text window displays. Operator inputs the mission statement for the FASP. It should provide precise terms defining who, what, when, where and why.
1)	Select Ok.	Plan Text window displays.
d.	In the Plan Text for Field Artillery appendix window highlight "Execution" in the Paragraphs sub pane and select Edit button. In the Paragraph Text window for the Execution Paragraph of the Field Artillery appendix address each Essential Field Artillery Task supporting the Essential Fire Support Task from the Fire Support Annex.	Operator inputs the execution paragraph. Default format for this paragraph are: a. Concept of Operation. b. Organization for Combat. c. Coordinating Instructions. The Paragraph Text window will not support simple graphics for EFAT's. It is suggested that the following text format be input here: • Task (Objective, Formation, Function). • Purpose. • Method (Priority, Allocation, Restriction). • Effect.
1)	Select Ok.	Plan Text window displays.

Procedure FA1. Develop Draft EFAT's in a plan (cont).		
Step	**Action**	**Result/Explanation**
	NOTE *Operator may insert Organization for combat by selecting Insert > Organization for Combat. The Organization for Combat will be displayed in text format in the paragraph if it has been input into the plan and a COA has been selected.* *Special Target Allocation Guidance, Target Lists and Fire Plans can be insert in Coordinating Instructions following the same steps.*	
e.	In the Plan Text for Field Artillery appendix window highlight "Service and Support" in the Paragraphs sub pane and select Edit button.	Operator inputs the Service and Support paragraph here.
	NOTE *Operator may insert CSR, MET, Movement, Reporting and Survey guidance here by selecting Insert > and guidance listed above. The guidance must have been input into the plan and a COA selected for it to display when inserted.*	
1)	Select Ok.	Plan Text window displays.
f.	In the Plan Text for Field Artillery appendix window highlight "Command and Signal" in the Paragraphs sub pane and select Edit button.	Operator inputs the Command and Signal paragraph here. Default format for this paragraph are: a. Command. b. Signal.
	NOTE *Operator may insert CONOPS guidance by selecting Insert > CONOPS Guidance. The CONOPS guidance will be pulled from the current situation CONOPS guidance.*	
1)	Select Ok.	Plan Text window displays.
2.	From the Plan Text window select OK.	Text index window displays.
	NOTE *To create Tabs for the FASP (i.e. TA, Survey, MET tab) from the Text index window the operator highlights the Field Artillery Annex and selects Options > New. This displays the Plan text window and allows operator to create additional Tabs for the FASP.*	
	From the Text index window select OK.	Text index window closes.

FA 2. Create a Field Artillery Support Matrix.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active, and a working plan Input a Fire Support Execution Matrix into AFATDS.

Procedure FA 2Create a Field Artillery Support Matrix.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase number window select Planning > Text > FA Support Matrix.	FA Support Matrix window displays.
NOTE *The FASM will be automatically displayed with the number of phases in the plan and the Units that can support the plan.*		
2.	Input data into the Matrix Cell Text fields for the appropriate unit at the appropriate phase.	Matrix cells are limited to 64 characters, 4 lines of 16 characters.
3.	To add a unit to the FSEM select Options > Add Unit.	An additional Row is added to the bottom of the Matrix (Left side).
a.	Input the name of the unit into the new Matrix Row.	17-character limitation in the Matrix Row field.
b.	Units can be removed from the FASM by highlighting the unit then from the FA Support Matrix window select Options > Remove unit.	Unit Matrix Row is removed from FASM.
4.	To add a phase to the FASM select Options > Add Phase.	New column is added to the right side of the Matrix. Operator must Input Phase text in the Phase ID field of the Matrix. This allows the operator flexibility to input Phase 1, 1a, Phase 2 etc.
a.	Phase ID's can be removed from the FASM by highlighting the Phase ID then from the FA Support Matrix window select Options > Remove Phase.	Phase Matrix, Phase ID is removed from FASM.
5.	Enter Remarks into the Remarks Field.	600 character Limitation. Used to input additional information outside of the matrix (i.e. Key Leader Loc., Succession of Command, Refinement Cutoff time, Rehearsal Times, etc.).
6.	Select the OK button.	FA Support Matrix window closes and saves any changes made.

Procedure FA 2 Create a Field Artillery Support Matrix (cont).		
Step	**Action**	**Result/Explanation**
7.	Select the Print Button.	Print Settings widow displays allowing operator to specify printer. Printer must be setup from the Main Menu Bar > System > Configuration > Printers > Printer Services.
8.	Select the Cancel button.	Window closes without saving changes.

FA 3. Create and Send a WARNO.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create and send a Warno.

Procedure FA 3. Create and Send a Warning Order with AFATDS		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase number window select Planning > Text > Index.	Text Index window displays.
a.	Highlight Operations Order, select Options > Edit.	Plan Text window displays.
2.	In the Plan Text window Text field Input WARNING ORDER.	
a.	Input data for the WARNO as per Chapter 1, Procedure “CP7 Create and Access a Plan Text”.	
3.	Exit the Plan once the WARNORD information has been input and saved by selecting OK.	
NOTE *Prior to sending Plan Text data a COA must be selected in the plan.*		
4.	From the Main Menu Bar select Situation > Transfer Plan.	Select Plan and Phase window displays.
a.	Highlight the Plan containing the WARNO data input and select OK.	Send Plan window displays.
b.	In the Send Plan window select Transfer mode as Comm.	Information type and category fields enable for selection.
c.	In the Information Type field Select Text.	Category field displays Blocks and Matrixes.

Procedure FA 3. Create and Send a Warning Order with AFATDS (cont).		
Step	**Action**	**Result/Explanation**
d.	In the Category field highlight the Blocks text.	Subcategory field displays available Blocks (default are Operation Order and Fire Support Annex) operator should see WARNING ORDER input from steps 1 to 3.
e.	In the Subcategory sub pane of the Send Plan window place a checkmark next to WARNING ORDER and select the Send button.	Send To window displays.
f.	Select the unit to send the WARNO data to and select OK.	OPFAC selected will receive Low Level Alert notifying receipt of Plan.

FA 4. Update Status of a FA Unit.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active. First the unit must exist as an icon on the current AFATDS situation. Communications must be established via direct or indirect with the unit or the unit must be receiving updates via Data distribution. A printer must be available for step 3.

Procedure FA 4. Update Status from a FS system		
Step	**Action**	**Result/Explanation**
1.	From the AFATDS Current Toolbar select Map > Find Symbol.	Find Symbol window displays.
a.	In the find Symbol window select the radial button next to the Friendly Units text.	Friendly Units display for selection in the lower sub pane.
b.	Select the FA Unit that you require status from.	On Overlay display populates with overlays that the unit can be displayed on.
c.	Select the overlay the unit exists on.	
d.	Select Apply or OK.	JMTK map moves placing unit selected in the center of the map area.
NOTE *Operator may be required to zoom into the map to see the unit depending on what zoom scale the current situation is in and the number of icons in proximity to the unit.*		
2.	Highlight the Unit icon in the current Situation by placing the cursor over the unit and clicking the number 1-trackball button.	Unit selected highlights. Light blue dot appears over unit location on the map.
a.	Click and hold the number 3-track ball button (far right).	Unit drop down menu appears.

Procedure FA 4. Update Status from a FS system (cont).		
Step	**Action**	**Result/Explanation**
b.	From the drop down menu scroll down and select “Request Status” and release the number 3 trackball button.	Paladin units will display a Request Status window allowing the operator to specify the information that is requested. The selections are: 1. Ammunition Data. 2. Computer Met. 3. Targets. 4. Registration Data. 5. Mask Data. 6. MVV Data. 7. Howitzer Status. MLRS Units will display a FCS Request Message window allowing the operator to specify the information that is requested. The selections are: 1. SPLL Status. 2. Point Data. 3. Masking Data. 4. Configuration. Non Paladin Cannon Units will send the standard Request Status and in return the operator will be updated with information available from the unit. Mortar, air, aviation, NSFS units will display a Send Status as a drop down selection. Data must be manually input by the responsible OPFAC and then transmitted to the requestor.
3.	Highlight the unit, click and hold the 3 (far right) track-ball button.	Drop down menu displays.
a.	Select Edit from the drop down menu.	Unit Workspace window opens.
b.	Select the printer icon from the Unit workspace window or select Options > print from the drop down menu.	Print unit Information Window displays.
c.	From the Print Unit Information window, select the information for printing or “All” and select OK.	Print Settings window displays.
d.	In the Print Settings window select the printer to print the information, specify the number of copies, print preferences and select OK.	Printer information window displays. “Following print job submitted: printer name”. Information Prints.

FA 5. Input Cannon Attack Methods into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input cannon attack methods into a plan

Procedure FA 5. Input Cannon Attack Methods into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the Attack Methods folder from the Cannon tree.	FA Attack Methods Table displays.
2.	From the FA Attack Methods Table select Target Category dropdown box. For each category selected input the following information: a. First Shell, First Fuze and First Volley. b. Second Shell, Second Fuze and Second Volley. c. Fire Unit Size.	Appropriate Target Types display for the Target Category selected. All possible Field Artillery Shell Fuze are displayed from the drop down menus. Volleys are limited from 0 (blank) to 200. Firing unit size selections consist of Section, Platoon, Battery, and Battalion.
3.	Repeat steps 2 until all target categories are input as desired.	
4.	Select OK.	FA Attack Methods table closes. Guidance input is saved and will be used for Mission Analysis when the plan is implemented.

Note

When transmitting the FA Attack Methods to IFSAS (through the FM; ATTACK message), only the "Send Category" button should be used. This will prevent AFATDS from sending 95 or more FM; ATTACK messages (one message for each target type). If you desire to send all target types to IFSAS, wait long enough between sending each target categories so that the message would have been received and processed by IFSAS.

FA 6. Input Cannon Immediate Attack Methods into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active Input Cannon Immediate Attack Methods into a Plan.

Procedure FA 6. Input Cannon Immediate Attack Methods into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace. or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the Immediate Attack Methods folder from the Cannon tree.	Immediate Attack Methods Table displays.
b.	From the Immediate Attack Methods window input the following: 1) First Shell, First Fuze and First Volley. 2) Second Shell, Second Fuze and Second Volley. 3) Fire Unit Size.	All possible Field Artillery Shell Fuze are displayed from the drop down menus. Volleys are limited from 0 (blank) to 200. Firing unit size selections consist of Section, Platoon, Battery, and Battalion.
2.	Select OK.	FA Immediate Attacks Methods window closes and data input is saved.

FA 7. Input MET Guidance into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a current communications configuration active and input a MET guidance

Procedure FA 7. Input MET Guidance into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the MET Guidance folder from the MET and Survey tree.	MET Units window displays.
2.	From the Met Units window select Add	Select unit window displays.
a.	From the Select unit window highlight the MET unit and select OK.	Edit MET Guidance.
3.	From the Edit MET Guidance window input the following data: a. Max Altitude to fly MET (ft.) b. Frequency to Fly MET (hrs)	 5 numeric character maximum. 2 numeric character maximum**.**
a.	For MET Type: a. Tgt Acquisition. b. Ballistic. c. Computer. d. Contamination Fallout. e. Target Area low-level.	
b.	Once a MET Type is selected, select Add and input the unit/units to route the MET data to.	Multiple units and /multiple MET types can be selected and input into the guidance.
c.	To remove units from the "route to" sub pane highlight the unit and select remove.	Units removed from the "route to" sub pane.
d.	From the Edit MET Guidance window select OK.	Edit MET Guidance window closes and MET Units window displays.
4.	From the MET Unit window select OK.	MET Unit window closes data is saved.

FA 8. Input Survey Guidance into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a current communications configuration that is active input survey guidance into a plan.

Procedure FA 8. Input Survey Guidance into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the Survey Guidance folder from the MET and Survey tree.	Survey Priority window displays.
2.	From the Survey Priority window select Add.	Select Unit window displays.
a.	From the Select unit window highlight the unit and select OK.	Unit selected displays in Survey Priority window under Unit Role.
NOTE *Operator continues to input all units that will receive Survey support in the plan into the window.*		
b.	In the Survey Priority window input the Priority of each unit Added.	Priority field is limited to 2 numeric characters. Defaults to 99. If the operator does not input a priority for each unit they will default to 1 when the window is closed.
3.	Select OK.	Survey Priority window closes data is saved.

FA 9. Input Position Areas into a Plan.

Conditions: Given an AFATDS workstation that is activated and has a current communications configuration input position areas into a plan.

Procedure FA 9. Input Position Areas into a Plan.		
Step	**Action**	**Result/Explanation**
1	From the Plan Name Phase Number window select the Geometry drop down menu and select Workspace. or Select the Geometry folder icon labeled "ge"(far right folder on toolbar).	Geometry Workspace/"Plan Name" window displays.
a	In the Geometry Workspace/ Plan Name window select the Options drop down menu and select New. or In the Geometry Workspace/Plan Name window select the "New Icon", far left page icon on the toolbar.	The New Geometry window displays.
NOTE *It is important for the operator to understand that when the plan is implemented its graphics will populate the current situation. If the current situational graphics were not imported when the plan was created they will remain in the current situation. Therefore it is recommended that the Friendly Situation be imported from Current when the plan is created in the basic plan information window and the graphics are edited to reflect the new plans situation.*		
2.	From the New Geometry window select: 1. Force Shape-Friendly Area. 2. Name-insert name. 3. Geometry Type- Position Area.	10 character limitation to the naming field.
a.	Input Position Area information as per unit SOP.	
b.	Select OK.	Geometry information window displays.
NOTE Position Areas will vary in size dependant on the firing unit. A naming convention should be established to make PA identification easy. PA selections should be based upon the following (ref: Call news letter 99-11): *1. Weapon range supports the accomplishment of EFATS.* 2. *Terrain supports firing in terms of cant and site to crest.* 3. *Positions are located away from enemy high-speed avenues of approach r enemy objectives.* 4. *Good routes are designated for resupply.* 5. *Movement routes support positions for ground and air.* 6. *The ability to communicate is confirmed.* *7. Radar deployment considerations such as cant mask angle, and search azimuth are verified.* *A Position Area overlay should be built at the FA and Maneuver OPFACS to facilitate land deconfliction.*		

FA 10. Input Enemy Order of Battle into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a current communications configuration active input the Enemy Order of Battle from the Intelligence Preparation of the Battlefield. An overlay is created that displays enemy units; a plan has been created and is open.

Procedure FA 10. Input the Enemy Order of Battle into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Units > Workspace or the Units Folder icon in the toolbar.	Units Workspace window displays.
a.	From the Units Workspace window select Options > New > Create New Enemy Unit.	Create New Enemy Unit Window displays.
b.	Input the Units ID in the Unit ID Field.	Unit ID fields are limited to the following character numbers: Sec 1 Plt 4 Btry 5 Bn 7 Regt 6 Div 10
c.	Select OK*	Enemy Unit Data window displays.
2.	From the Enemy unit Data window Input the following data: - Location. - Target Type. - Number of platoons. Role, Echelon, Function Reinforced or Detached, Lower Echelon ID and higher Echelon ID of the enemy icon.	Target type and number of platoon elements will directly affect the number of rounds required in the plan MOE statistics. Role, Echelon, Function, Reinforced/Detached, lower and higher echelon ID will all display on the map not in the enemy unit data window.
a.	Select OK.	Repeat steps 1 and 2 until the Enemy order of battle is built into the plan.

NOTE

**The Enemy Unit ID is the units' name, which can be obtained from the Intelligence Annex or your friendly local all knowing S-2.*

The Enemy order of Battle can be input directly from the Intelligence Preparation of the Battlefield. AFATDS will use this data to determine round required and number of targets each ZOR will be responsible for. Enemy graphics (boundary lines, axis of advance, obstacles, decision points etc.) should be input to assist the targeting team in the targeting process.

FA 11. Input Routes into a Plan.

Conditions: Given an AFATDS workstation that is activated, with a planned map open and CADRG map tiles loaded. The operator will input routes to support movement of FA/TA assets to assist in land deconfliction issues with the supported maneuver unit.

Procedure FA 11 Input Routes into a Plan.		
Step	**Action**	**Result/Explanation**
1	From the Plan Name Phase Number window select Move > Routes and Route Segments > New Route Segment.	New_Route_Segment window displays.
a.	From the New_Route_Segment window input the route segments name and select OK.	Name field has a 30-character limitation. Route Segment information window displays.
2.	From the route Segment Information window input the following data: a. Speed (kph). b. Road Type: 1. Divided Highway without a Median. 2. Divided Highway with Median. 3. Primary All Weather. 4. Secondary All Weather. 5. Light All Weather. 6. Dry All Weather. 7. Trail. 8. Terrain.	
c.	Select Coordinates.	Edit Route Segment window displays.
3.	From the Edit Route Segment window select the grid of the Start point. Enter the grid into the Location sub pane of the window and select Apply.	Location point 2 appears in the Location sub pane.
NOTE *The operator can use the CADRG RPF map tiles to input the roads or routes the units will use to move to PA by cutting and pasting the locations from the map and entering them into the Edit Route Segment window.*		
a.	Using step 3 inputs all locations into the Edit Route Segment window then select OK.	Route Segment Information window displays.
4.	From the Route Segment Information window select Obstructions.	Obstructions window displays.
a.	From the Obstructions window select New.	Obstruction Information window displays.

Procedure FA 11 Input Routes into a Plan (cont).		
Step	**Action**	**Result/Explanation**
b.	From the Obstruction Information window enter the following data: 1. Location. 2. Type. Selections are: a. Bridge. b. Reduced Width. c. Overhead. d. Ford. e. Bypass Difficult. 3. Bridge Classification * 4. Height (m). 5. Width (m). 6. Depth (m).	Location must be on the route segment. * Legal entries are 0 to 99. Bridge Classification will be checked against unit data (General > Movement) to determine if the unit can pass through the obstacle on the route or route segment. Legal entries for Height, Width and Depth are 0.00 to 9.99.
c.	From the Obstruction Information window select OK.	Obstruction window displays.
d.	From the Obstruction window select OK.	
5.	From the Route Segment Information window select Intersections.	Intersections window displays. Window will display any intersections that occur with the route once it is built. Recreate button causes the intersections to be recalculated and displayed.
a.	From the Intersections window select OK.	
6.	Repeat steps 1 to 5a and input all the route segments the unit will take to arrive at its new PA.	
7.	From the Plan name Phase number window select Move > Routes and Route Segments > New Route.	New_Route window displays.
a.	From the New_Route window input the routes name and select OK.	Route identification window displays.
b.	Select the first or starting route segment on the map by moving the cursor over the segment. Pressing SHIFT and ALT key at the same time while clicking on the segment with the 3 track-ball button (far right).	Each segment selected will highlight and appear in the Segments in route sub pane. As segments are added the Length (km) field will be calculated and displayed.

Procedure FA 11 Input Routes into a Plan (cont).		
Step	**Action**	**Result/Explanation**
NOTE *In order to build a route from route segments the routes must intersect. Its ending point must be the same grid as the next segments beginning point.*		
c.	Once all route segments have been selected using step 7b select OK in the Route identification window.	Route Identification window closes.

FA 12. Input Movement Guidance into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active Input Movement Guidance into a Plan.

Procedure FA12 Input Movement Guidance into a Plan.		
Step	**Action**	**Result/Explanation**
1	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a	From the Guidance Workspace window double click on the Movement Guidance folder from the C3 and Logistics tree.	Movement Guidance window displays.
2.	From the Movement Guidance window input the priority of the units listed.	Window specifies information on relative priorities, which unit classes have when competing for use of the same route segment during movement planning at FA CP. Legal entries are 1 to 99.
3.	Select OK.	Movement Guidance window closes.

FA 13. Input Support Locations into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a current communications configuration active; input support locations into a plan.

Procedure FA 13 Input Support locations into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Geometry drop down menu and select Workspace. or Select the Geometry folder icon labeled “ge”(far right folder on toolbar).	Geometry Workspace ”Plan Name” window displays.
a.	In the Geometry Workspace/ Plan Name window select the Options drop down menu and select New. or In the Geometry Workspace/Plan Name window select the “New Icon”, far left page icon on the toolbar.	The New Geometry window displays.
b.	In the New Geometry window select and input the following Support Location graphics: Areas. Ammunition Holding Areas. Brigade support Areas. Division Support Areas. General Areas for other CSS areas as required. (Battalion Support Operations Center, Administrative Logistics Operation Centers, etc.). Points. General point to depict CSS points required (Ammunition Transfer Point, Logistics Release Point, etc.).	
2.	Once all geometries are built select Options exit on the New Geometries/Plane Name window.	New Geometries/Plan Name window closes.

NOTE

It is important for the operator to understand that when the plan is implemented its graphics will populate the current situation. If the current situational graphics were not imported when the plan was created they will remain in the current situation. Therefore it is recommended that the Friendly Situation be imported from Current when the plan is created in the basic plan information window and the graphics are edited to reflect the new plans situation.

FA 14. Input Decision Support Template Graphics into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input a decision support template graphics into a plan.

Procedure FA 14. Input the Decision Support Template into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Geometry drop down menu and select Workspace. or Select the Geometry folder icon labeled “ge”(far right folder on toolbar).	Geometry Workspace/”Plan Name” window displays.
a.	In the Geometry Workspace/ Plan Name window select the Options drop down menu and select New. or In the Geometry Workspace/Plan Name window select the “New Icon”, far left page icon on the toolbar.	The New Geometry window displays.
b.	In the New Geometry window select and input the following Decision Support Template (DST) graphics: 1. Named Area of Interest (NAI). 2. Target Area of Interests (TAI). 3. Target Buildup Areas (TBA) as required. Naming convention should match the DST.	NAI should be input using Friendly Area > General Area.
2.	Once all geometries are built select Options exit on the New Geometries/Plane Name window.	New Geometries/Plan Name window closes.

FA 15. Input FA Preference Table into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input FA Preference Table into a Plan.

Procedure FA 15 Input FA Preference table into a plan		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the FA Preference Table folder from the System Preferences and Restrictions tree.	FA Preference Table window displays.
2.	From the FA Preference Table window select Add.	Select unit window displays.
a.	Select Units to be input into the FA Preference Table.	For example a DS Battalion would place its subordinate Battery FDC's into the table.
3.	From the FA Preference Table Select Target Category.	Each Target Category selected will display Target Types of the category in the left sub pane of the window below the units input into the table.
a.	Rank each unit input in the FA Preference Table with each Target Type.	The FA Preference Table allows the BN FDC to ensure certain Firing Units are selected for specific target types, if desired. For each target type, this guidance specifies an preferred ranking of fire units to attack the target. This guidance may be used to cause specific targets to be routed to or attacked by a specific unit. • To restrict a unit from shooting certain target types, enter an "R" for that unit. • To indicate no preference, enter an "N" or leave the field blank for that unit. • Any units not entered here will consider based on their mission load, capabilities and restrictions. FA CP's only uses FA Preference Table during mission processing.
4.	Select OK	FA Preference window closes.

FA 16. Input Field Artillery Restrictions into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a current communications configuration active input FA restriction into a plan.

Procedure FA 16. Input Field Artillery Restrictions into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the FA Restrictions folder from the System Preferences and Restrictions tree.	FA Restrictions displays.
2.	From the FA Restrictions window select Add.	Select Unit window displays.
a.	Select the unit to be restricted > OK.	Edit FA Restrictions window displays.
b.	In the Edit FA Restrictions window select shell and fuze to be restricted.	
c.	Max Volleys and Max Fire Units/Tgt can also be entered if desired.	
NOTE *Max Fire units can have an impact on massing fires. Careful consideration should be used when Editing FA Restrictions.*		
d.	Select OK.	Edit FA Restriction window closes. Unit is updated in FA Restrictions window.
e.	From the FA Restrictions window select OK.	FA Restrictions window closes changes are saved.
NOTE *Units in FA Restriction window can be added, removed or edited at any time.*		

FA 17. Input Rocket Missile Attack Guidance into a Plan.

Conditions: Given an AFATDS workstation that is activated and with current communications configuration input rocket missile attack guidance into a plan.

Procedure FA 17 Input Rocket Missile Attack Guidance into a Plan.		
Step	**Action**	**Result/Explanation**
1	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the Attack Methods folder from the Rocket/Missile (Rkt/Msl) tree.	Rocket/Missile Attack Methods Table displays.
2.	From the Rocket/Missile Attack Methods Table select the Target Category dropdown box.	Target Types change in the lower sub pane of the window.
a.	Operator specifies a munition and number of rounds to fire on each Target Type.	Operator ensures all 13 Categories and their associated target types are input into the table.
3.	Select OK.	Rocket/Missile Attack Methods closes.

FA 18. Input Rocket Missile Guidance into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input rocket missile guidance into a plan.

Procedure FA 18 Input Rocket Missile Guidance into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the Guidance folder from the Rocket/Missile (Rkt/Msl) tree.	Rocket Missile Guidance window displays.

Procedure FA 18 Input Rocket Missile Guidance into a Plan (cont).		
Step	**Action**	**Result/Explanation**
2.	From the Rocket Missile Guidance window input the following data: 1. Self Destruct Code (1-6). 2. Time between rounds (sec). 3. Dwell Time (min). 4. High QE Authorized. 5. Allow Multiple Missions. 6. Report Advance Ready. 7. Report Ready. 8. Reload When: a. One Pod Empty. b. Both Pods Empty. 9. MFR Format: a. Short. b. Long. 10. Terminal Homing Munitions: a. Altitude of Flight (ft). b. Target Count code. c. Scan Limit (mils). d. Tgt Element Separation (m).	1. Used for the AT-II mine. Default is 1. 2. The time delay between firing rockets from the same launcher; legal entries are 5-99, default is 5. 3. The amount of time a launcher may occupy a firing point; legal entries are 0 to 99 defaults are 0. 4. Allows high quadrant elevation to be assigned in the MLRS CFF; default is High QE not authorized. 5. Allow multiple missions to be assigned to a launcher on a firing point; default is multiple missions not authorized. 8. Used to determine when to send a launcher to a reload point. 9. Long MFR should be used; short MFR will cause the AFATDS to not update MLRS ammunition. 10. Target Count code specify the maximum distance between target elements allowable without firing a multiple mission.
3.	Select OK.	Rocket Missile Guidance window closes.

FA 19. Input Supply Reporting Guidance into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active input Supply Reporting Guidance into a Plan.

Step	Action	Result/Explanation
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the Supply reporting Guidance folder from the C3 and Logistics tree.	Reporting Guidance window displays.
2.	From the Reporting Guidance window input the following data: 1. Class III reporting percent threshold 2. Class V reporting percent threshold 3. Class VII reporting percent threshold	Class III: Petroleum, oils, and lubricants (POL) Class V: Ammunition Class VII: Major end items
3.	Select OK	Reporting guidance window closes.

FA 20. Input CSR Guidance into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active Input CSR Guidance into a Plan.

Procedure FA 20 Input CSR Guidance into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Guidance's drop down menu and select Workspace… or Select the Guidance's folder icon labeled "gu"(third folder from left on toolbar).	Guidance Workspace window displays.
a.	From the Guidance Workspace window double click on the CSR Guidance folder from the C3 and Logistics tree.	CSR Guidance window displays.
2.	From the CSR Guidance window select the caliber of munitions.	Selections are: 1. 105mm 2. 155mm 3. 203mm 4. MLRS 5. 81mm 6. 107mm 7. 120mm Munitions selections change based off of caliber selected.
a.	Input the D-day and S-day controlled supply rate guidance in each munition type displayed.	
3.	Select OK.	CSR Guidance window closes.
NOTE *This guidance can be imported into the Plan Text once it is input.*		

FA 21. Input FA Estimate into a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active. A course of action must have been selected in a plan and a target list must exist in the Plan.

Procedure FA 21 input FA Estimate into a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select Planning > FA Estimate.	FA Estimate window displays.
2.	Input the following data into the FA Estimate window: a. Estimate based on. b. Select units.	Selections by caliber are: 1. 105mm 2. 155mm 3. 203mm FA Estimate Units window displays
a.	Select All. or Place checks by the units to be considered for the estimate. Select OK.	
	NOTE *The FA Estimate tool provides a high level munitions estimate using FA guidance established in the plan or if no guidance exists it uses the unclassified effects tables to determine how much ammunition is required against the number of platoons in an enemy array that you established as targets. The FA Estimate tool should be used prior to any fireplans, groups, series, etc. are developed in the plan. Targets must exist in the plan for this calculation. Units selected will only be considered if the unit can range the target. When you use the FA Estimate function to calculate quantities of ammunition to support a plan it uses all the targets on the Master Plan Target List (MPTL) to calculate the munitions estimate. The MPTL is associated with each Phase of a Plan and in Current to track all instances of each target generated or received into the system from all target lists, series, groups, individual Fire missions, etc. An operator should never delete targets or execute the Target duplication capability and delete targets from the MPTL. If you delete targets from the MPTL or execute a duplication check and delete them they will be deleted from whatever list, series, group or other action you used to generate the target. It is recommended that operators that open the MPTL exercise extreme caution in handling the list.*	
b.	From the FA Estimate Window select Calculate.	Total Targets, Acquirable Targets, Attackable Targets, Acquirable & Attackable Targets, Shell Quantity/ Total and Fuze Quantity/Total will display in the window.
	NOTE *Information provides the operator with the number of targets his unit can attack and the munition/fuze requirements required meeting the attack criteria specified. Munition/Fuze requirements are derived from the Cannon Attack Methods table, TMM or if this guidance is not input into the plan then default lookup tables are used.*	

Chapter 4.
AFATDS and Fire Planning

Chapter 4 describes the AFATDS and its uses in Fire Planning
- Section I provides an overview of AFATDS and targeting.
- Section II. Describes, in detail, the steps executed to construct Fire Plans

Section I. AFATDS and Targeting.

RELATIONSHIP OF TARGETING TO MDMP

Targeting is a commander driven process and starts with the receipt of the mission. As the targeting process develops each targeting function occurs simultaneously and sequentially.

Initially, the decide function coincides with the MDMP from the mission analysis through the issuing of the approved plan or order. The detect function starts with the commanders approval of the plan or order and is accomplished during execution. Once detected, targets are attacked and assessed as required. After an operation commences, the targeting process becomes cyclic with all the functions happening simultaneously. Targeting meetings are used as a vehicle to focus the targeting process within specified time periods. Figure 1.1 shows the relationship between the D3A methodology and the MDMP along with products generated during the targeting process.

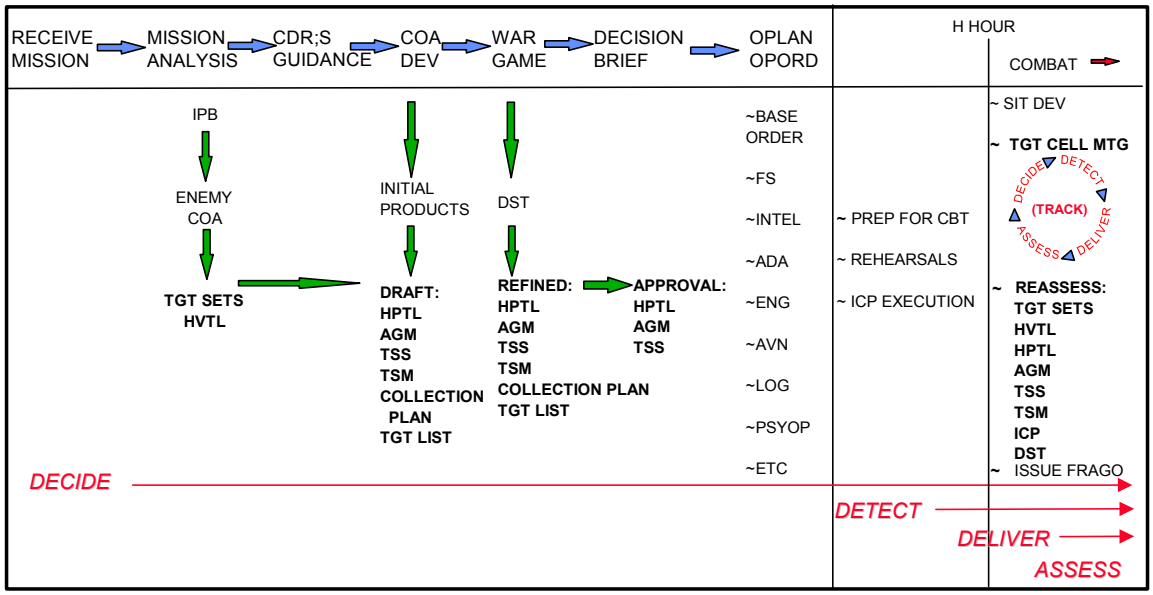


Figure 1.1 Relationship of Targeting to the MDMP

Section II. AFATDS Fire Planning Procedures.

FP 1. Create a Target List for a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create a target list for a plan. A COA must have been selected for the phase in order to enable the targeting functionality while in a plan.

Procedure FP 1. Develop a Target List for a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Target drop down menu and select Workspace. or Select the Target folder icon labeled "tgt"(far right folder on toolbar).	Target List: CURRENT ACTIVE TARGET LIST / Current window displays.
a.	In the left subpane highlight the Plan Name Phase Number folder and Select the Create a New Target List icon. or Highlight the Plan name Phase number folder on tree and 3-button click and select New.	List name text field displays.
NOTE *Create a New Target List (Brown icon with two green target reference point symbols) and Create New Air Support List (light blue icon with an aircraft silhouette) Icons activate.*		
c.	Input unique target list name for plan.	30 character limitation.
d.	Select Create.	Target List: name /Plan name phase number window displays.

FP 2. Create a Target in a Target List.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create a target in target list.

Procedure FP 2.Create a target in a Target List.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Targets drop down menu and select Workspace. or Select the Targets folder icon labeled "Tgt"(second folder from the left on the toolbar).	Target List window displays.
a.	In the left sub pane select the key to the left of the Plan name Phase number folder.	Folder expands and the target list made in plan and MASTER plan name will display as folders.
b.	Highlight the target folder you wish to input a new target into. Click on the number one trackball button and from the drop down list displayed select Open.	Target list opens and displayed the folder selected.
2.	From the Target List: Target List name/Plan and Phase number window select Target > New. or Select the first Icon on the left side of the Target List: Plan name Phase number window toolbar. (Icon looks like a page of paper).	Basic Target Information window displays. Basic Target Information window consist of the following seven tabs: 1. Basic Tgt Data 2. Munitions 3. More Tgt Data 4. More mission Data 5. Attack Summary 6. Shift 7. Polar/Laser The default tab displayed is Basic Tgt Data.
a.	From the Basic Target Information window, Basic Tgt Data Tab the operator inputs the relevant target information. Once the information is input the operator selects OK.	A grid is the minimum requirement for the target to be saved. If the operator cuts and paste a location from the map an Altitude will have to be manually input into the location field. Basic Target Information window closes. Target is created in the Target list that was opened in the Target List: Plan name Phase number window.

FP 3. Create a Group in Planned Phase.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create a group in a planned phase.

Procedure FP 3. Create a Group		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Targets > Groups > New.	Group window displays.
2.	From the Group window input a group name.	30 character name limitation.
a.	In the List Type sub pane highlight Target List and select Open.	List Type changes to Target List and Copy arrow becomes selectable.
b.	In the Target List sub pane highlight the target list containing the targets you want to copy into the group and select Open.	Targets display.
c.	Highlight the targets that will be copied into the group and select the copy arrow.	Target information is displayed into the group target sub pane. More than one target can be highlighted and copied over.
NOTE *The operator can select a target in the groups sub pane and the Location field at the bottom of the Group window will display.* *To view target information highlight the target and select Target > Description. This will display the Basic Target Information window in a view only mode.* *To find the target on the map select Target > Find on Map. JMTK map centers on the target.*		
d.	Targets can be added from the map by highlighting the target symbol on the JMTK map display and from the Group window select Target > Add from Map.	Target data enters group window.
3.	To delete a target from the group highlight the target in the group sub pane and select Target > Delete.	Target deletes from the Group sub pane.
4.	Select OK.	Group is saved in AFATDS Group Target Lists.

FP 4. Create a Series.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create a series.

Procedure FP 4. Create a Series.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Targets > Series > New.	Series window displays.
2.	From the Series window input a group name.	30 character name limitation.
a.	In the List Type sub pane highlight Target List and select Open.	Target List for Plan display and Copy arrow displays.
b.	In the Target List sub pane highlight the target list containing the targets you want to group and select Open.	Targets In highlighted Target List display.
c.	In the Target List Name sub pane highlight the targets that will be used to build the group and select the Copy arrow.	Target information is copied into the group target sub pane.
NOTE *The operator can select a target displayed in the groups sub pane and the Location field at the bottom of the Series window will display its coordinates.* *More than one target can be highlighted and copied over.* *To display all the information on a target selected highlight the targeting the Series window and select Target > Description. This will display the Basic Target Information window in a view only mode.* *To find the target on the map select Target > Find on Map. JMTK map centers on the target.*		
d.	Targets can be added to the series sub pane by highlighting them on the map then from the Series window select Target > Add from Map.	Highlighted target enters series window.
3.	For each target entered into the Series sub pane an offset time must be specified.	Legal entries are 0 to 9999 minutes.
4.	Select OK.	Series Name is saved in AFATDS Series Target List.

FP 5. Create a Fire Plan in a Plan.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active create a fire plan in a planned phase.

Procedure FP 5. Create a Fire Plan in a Plan.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Targets > Fire Plans > New.	Fire Plan window displays.
2.	From the Fire Plan window enter the plan name into the Fire Plan field.	30 character limitation.
a.	Select the time method that will be used for the Fire Plan. Selections are H-Hour, On-Call, and Absolute.	H-Hour and On-Call start and end times default to +0. Absolute Start and End times default to 010000zJan70.
3.	From the List Type highlight the Fire Plans, Series, Groups or Target Lists and select Open.	Selected list displays.
a.	Highlight the desired list and select Open.	Targets in the list display.
b.	Highlight the targets that will be input into the plan and select the Copy arrow.	Target data is placed into the Fire Plan window. All targets associated with a Group or Series will be copied over if selected.
4.	Once all targets are input into the fire plan the operator must establish Offset Times or Ranks to fire the targets.	A Series with offset times established will automatically populate with the times specified when the series was built. A Group of targets will require the offset time or rank for the first target in the group. The remaining targets in the group will populate with the data input.
5.	To establish shell, fuze and volleys highlight a target in the plan (a blue border will appear around the highlighted target).	This enables the FFE Shell #1/2, Fuze, # Shells and dispersal Pattern selections at the bottom right of the Fire Pan window.

Procedure FP 5. Create a Fire Plan in a Plan (cont).		
Step	**Action**	**Result/Explanation**
a.	Select FFE shell #, fuze, volley/#shells and dispersal pattern for each target in the Fire Plan being created.	The # shells will change to # Volleys if the operator specifies an artillery shell to be fired on a Target in the Fire Plan. Depending on the FFE Shell selected the Fuze setting may limit the operator to a single choice (i.e. WP2 will only allow a fuze selection of Time) or no choice (i.e. Copperhead allows no Fuze selection). When a FFE Shell of ATACM is selected the default Dispersal pattern will be"C".
6.	To delete a target from the fire plan, highlight the target and select Target > Delete…	Target is removed from the Fire Plan.

FP 6. Search AFATDS Target Information.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active search AFATDS target information.

Procedure FP 6. Search AFATDS Target Information.		
Step	**Action**	**Result/Explanation**
1.	From the Plan Name Phase Number window select the Targets > Search.	Target Search window displays.
2.	From the Target Search the following Search Criteria are: a. Target List: b. All or specific Target Categories c. All or specific Target Types. d. Within Geometry e. Within Area. f. HPT Only g. Status. Selections. h. Last Updated From. Last Updated To:	a. All will search all Target List. b. Target types search for specific targets For example if the operator is building a SEAD program to support a Deep Attack the operator could specify the search for all ADA. d. Geometry Selections are within an Enemy or Friendly Area. e. Operator can establish the following Areas to Search in: 1. Circle 2. Rectangle 3. Points g. Used primarily to search for targets in the current situation.

Procedure FP 6. Search AFATDS Target Information (cont).		
Step	**Action**	**Result/Explanation**
3.	Select Search button.	AFATDS OPFAC's targeting data is searched by specified Criteria and results of the search are displayed in the Search Results sub pane.
4.	Select Send Query.	Operator can Query other AFATDS' Target list. As an example the BDE FSE sends a Query to the DIV FSE Targeting OPFAC to receive all ADA target information.
5.	The following can be done with Search Results when a target is highlighted in the list: a. SelectTarget>Description. b. Add to Target List… c. Delete from Target List… d. Add to Fire Plan… e. Delete from Fire Plans… f. In the Search Results sub pane input a Target List name. Highlight the targets in the Search results field that will be to add to the new target list and select the Save button.	a. Basic Target Information window displays. b. Select Target Lists for Add window displays. The operator can select the target list to add the target to. c. Remove from Target List Confirmation window displays. Allows operator to remove the target data from Target Lists. d. Select Fire Plan for Add window displays. Operator selects the Fire Plan that the Targeting data can be added to. e. Remove from Fire Plan Confirmation displays. Allows operator to remove the target data from Fire Plans. f. New named Target List is saved in the Plan/Phase
6.	Select OK.	Target Search window closes.

NOTE

This tool assists the operator in developing preliminary targets for preparation fire, SEAD's, etc. Targets in the operators OPFAC and other OPFACS can be searched and List made to support the fire plan. Using this feature the operator can access the most current or planned targeting information available.

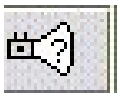
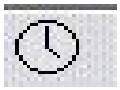
FP 7. Schedule a Fire Plan.

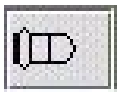
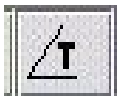
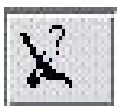
Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active schedule a fire plan.

Procedure FP 7.Schedule a Fire Plan.		
Step	**Action**	**Result/Explanation**
1.	From the AFATDS Current Toolbar select Targets > Fire Plans > Edit.	Select Fire Plan window displays.
a.	Highlight the Fire Plan that you will Schedule and select OK.	Fire Plan window displays.

Procedure FP 7.Schedule a Fire Plan (cont).		
Step	**Action**	**Result/Explanation**
2.	In the Fire Plan window select Options > Schedule.	Schedule of Fires window displays.
3.	In the Schedule of Fires window the left sub pane will display firing units available for the schedule. The timeline of the schedule is displayed on the top of the sub pane.	The units are based off of the supporting units available to the OPFAC. The Timeline will default to 5-minute increments of time.
a.	To add or remove firing units considered for the Schedule of Fire, from the Schedule of Fire window select Options > Add Units or Remove Unit.	When Add Units is selected the Select Unit window displays and the operator highlights the firing unit to add and selects OK. Remove Units will not be selectable until a firing unit is highlighted in the Schedule of Fires firing units sub pane.
4.	To schedule the Fire Plan select Options > Calculate.	The Schedule of Fires window displays targets that are scheduled by unit and time. Targets that are displayed in red are firing at their maximum rate of fire. Targets in green at their sustained rate of fire. Unscheduled targets are displayed in the Unscheduled targets box lower left side of the Schedule of Fire window. Total number of rounds required for the scheduled targets are displayed in the Total rounds window.
5.	To determine why targets were unscheduled select Options > Unscheduled Targets.	Unscheduled Targets window displays.
a.	From the unscheduled targets window highlight a target and select OK.	Options Review window displays.
b.	From the Options Review window determine the reason why the target was unscheduled using the following data: 1) Tgt Seg?	The window is similar to the Attack Options window. 1) “Y” indicates the target is segmented. “N” indicates the target is not segmented.

Procedure FP 7.Schedule a Fire Plan (cont).

Step	Action	Result/Explanation
	NOTE *Target segmentation occurs at the controlling OPFAC; other computers will display a blank.*	
	2) Unit Range Capable. 	Range Capable? "Y" indicates the weapons and ammunition can range the target; "N" indicates the target is outside range. The operator can determine which unit or units can range the target. If no units are in range the operator should consider providing appropriate ammunition, moving the firing unit or requesting additional fires. The unit supporting additional fires can be added to the schedule (see step 3a above) and recalculated.
	NOTE *If request for additional fires has been approved for an unscheduled target that units General Data, Support Relationship must reflect that it is supporting the controlling OPFAC.(I.e. An MLRS platoon that is GS to a brigade must have the supported DS Bn FDC input in the support relationship.) This will allow the firing units to be selected from the Select Units window when a firing unit is added to the schedule.*	
	3) Near Mask Violation. 	3) Near Mask Violation? "Y" indicates a mask stored with the unit's weapon data is violated by this option. "N" indicates no mask violation. If a near mask violation occurs the unit must be moved in order to support firing the unscheduled target.
	4) Downrange Mask Violation. 	4) Downrange Mask Violation? "Y" indicates downrange mask geometry is violated by this option; "N" indicates no violation. If a downrange mask violation occurs the unit must be moved in order to support firing the unscheduled target.
	5) Response time Capable. 	5) Response Time Capable? "Y" indicates that considering the unit response time and all missions previously assigned of equal or greater mission value, the unit can engage before the NLT time expires. The operator can edit the firing unit in the detailed data folder adjust its response time or change the target decay time in the guidance folder.

Procedure FP 7.Schedule a Fire Plan (cont).		
Step	**Action**	**Result/Explanation**
	6) Munition Capable. 	6) Munition Capable? "N" indicates the unit does not possess the ammunition for this option or the mission requires massing of fires and massing is prohibited by guidance entries. Ammunition for immediate consumption must be added to the firing unit.
	7) Copperhead Angle less than 800 mils. 	7) Angle T capable? Applies only to 155mm Copperhead missions. "N" indicates angle T is greater than 800 mils.
	8) Coordination required. 	8) Requires Coordination? "Y" requires coordination; "N" does not.
	9) Unit or system restricted. 	9) Is the unit unrestricted? "N" indicates the unit is restricted from firing the mission in System Tasks guidance.
	10) Effects Capable. 	10) Can the unit achieve desired effects? "N" indicates desired effects requested in the FR or in the TMM guidance cannot be achieved. This is blank if the target is a volleys type.
	11) Appropriate system for mission type. 	11) Is the FS system appropriate for the mission? Air and rocket/missile units are inappropriate for adjust missions.
c.	Highlight a unit in the Options Review window.	Range, Reaction Time, Angle T(mils) and Operational Status is displayed in the Unit Data sub pane.
6.	To view an individual unit Schedule highlight a firing unit and select Options > Unit Schedule.	The Unit Schedule window displays all targets that the firing unit will fire in support of the Schedule of Fire.
a.	Highlight a scheduled target to be fired.	The Shell, Fuze and Volley information is displayed in the lower portion of the window.

Procedure FP 7.Schedule a Fire Plan (cont).		
Step	**Action**	**Result/Explanation**
b.	To add a target to the firing unit select Target > Add.	Select Target window displays.
1)	Operator highlights the target to add to the firing unit and selects OK.	Target is added to the firing unit schedule. If the Target is out of range then it will be displayed on the unit Schedule window as " Target AA0001 not within range".
c.	To remove a target highlight the target in the schedule and select Target > Remove.	Target is removed from the unit schedule.
d.	To view a target highlight the target and select Target > View.	Basic Target Information window displays.
e.	To Copy a Target to another firing unit highlight the target and select Target > Copy.	Select unit window displays.
1)	From the Select unit window highlight the unit to copy the target to and select OK.	The target information will be copied to the unit selected. The Select unit window closes. The target information will display in the Schedule of Fires window under the unit selected.
NOTE *The unit selected has to be able to support the target data. If the target is to be engaged with HE RAP it cannot be copied to a MLRS unit or a unit that does not have HE RAP*.		
f.	To move a target to another units schedule from the Unit Schedule window highlight the target and select Options > Move.	Select Unit displays.
1)	Operator highlights the unit to move the target to and selects OK.	Target is moved to unit-selected schedule.
7.	To send the Schedule, select the Send to Fire Units button.	Firing units in the Schedule of Fires will only receive the portion of the Schedule that they are responsible for firing.
8.	From the Schedule of Fires window select OK.	Fire Plan window displays
9.	From the Fire Plan window select OK.	Fire Plan window closes.

FP 8. Execute a Schedule of Fires.

Conditions: Given an AFATDS workstation that is activated and with a Current communications configuration active execute a schedule of fires.

Procedure FP 8. Execute a Schedule of Fires.		
Step	**Action**	**Result/Explanation**
1.	From the AFATDS Current Toolbar select Targets > Fire Plans > Edit.	The Select Fire Plan window displays.
2.	From the Select Fire Plan window highlight the fire plan to be executed and select OK.	The Fire Plan window displays.
3.	From the Fire Plan window select the Execute button.	The Confirm Target Values window displays.
a.	Select Yes.	When this selection is made, AFATDS assigns a mission value based on guidance to the fire plan TOT targets.
b.	Select No.	When this selection is made, AFATDS automatically assigns a mission value of 100 to all fire plan TOT targets.
NOTE *At this point all fire plan targets are evaluated as missions. If intervention is on, the missions are queued in the IP icon of the Current tool bar. The operator should consider establishing Intervention Point rules (AFATDS Current Toolbar > Mission Processing > Intervention Points) that will allow the schedule of fires to be executed without manual interaction.*		
4.	From the fire plan window select the Cancel button on the Fire Plan window.	The Fire Plan window closes.

Appendix A

Measure of Effectiveness Statistics.

This appendix will provide detailed information on the AFATDS Measure of Effectiveness (MOE) Statistics calculated during course of action and Plan Comparison. The Appendix is organized by MOE Statistics order (Tubes in Sector, Massing Capability (Tubes), Rounds Required, Task Supportable, Simplicity and System Utilization) and Task Supportable (Close Support, Counter Fire, SEAD and Interdiction). Brief explanations on how the numbers are quantified.

As a reminder the MOE/Task Supportable numbers provided are based off of relative values. They are not intended to provide the operator with exact figures required to support the plan, but to allow the operator to have a value to compare against when determining what is the best Plan or Phase Course of Action.

Tubes in Sector.

Figure A-1 (below) provides the operator with the numbers used to determine the Relative number of tubes within a given sector in AFATDS. A sector is considered to be a Zone of Responsibility. Units must be input into the Organization for Combat for the MOE to be calculated.

Caliber	Relative Value
81mm	.5
105mm	.5
107mm	.7
120mm	.8
155mm	1.0
203mm	2.0
MLRS	2.0
Naval Gun	1.0

Figure A-1 Caliber Relative Value

Example a sector containing 4 x 4.2(107mm) mortars would have a value of .7 x 4 =2.8.

A sector containing 6 x MLRS launchers would have a value of 2 x 6 =12.

Massing Capabilities (Tubes).

Massing Capabilities (Tubes) is equal to the total value of the tubes in sector value and adjacent tubes based off of assigned Mission (GS, DS, R and GSR). A fraction of adjacent tubes is used when determining tubes available for massing from adjacent sectors. Echelon is determined by what the operator inputs in the Situation > Friendly of the Plan. Mission is determined based off of the Organization for Combat in the Plan.

Figure A-2 correlates the Echelon and Mission with the fraction used. A distinction is made between a Main Effort Sector and Non Main Effort. Main Effort Sectors will provide a lesser number of tubes to adjacent Non Main Effort Sectors.

Echelon	Mission	Massing Potential	
		Main Effort Sector	Non- Main Effort Sector
Corps	Organic	0	2/3
	OPCON or Attached	1/3	2/3
	GSR	½	2/3
	GS	2/3	2/3
Division	DS	0	2/3
	R	1/3	2/3
	GSR	½	2/3
	GS	2/3	2/3
Brigade	Organic	0	2/3
	Supporting Bn of TF	1/3	2/3
	Supporting Bde	2/3	2/3
Battalion	Organic	0	2/3
	Supporting Co or Team	1/3	2/3
	Supporting Bn or TF	2/3	2/3

If only 1 sector GS is massed as 1 instead of 2/3.

Figure A-2 Massing Potentials

Figure A-3 provides examples in a Brigade Sector of how Massing Capability would be determined

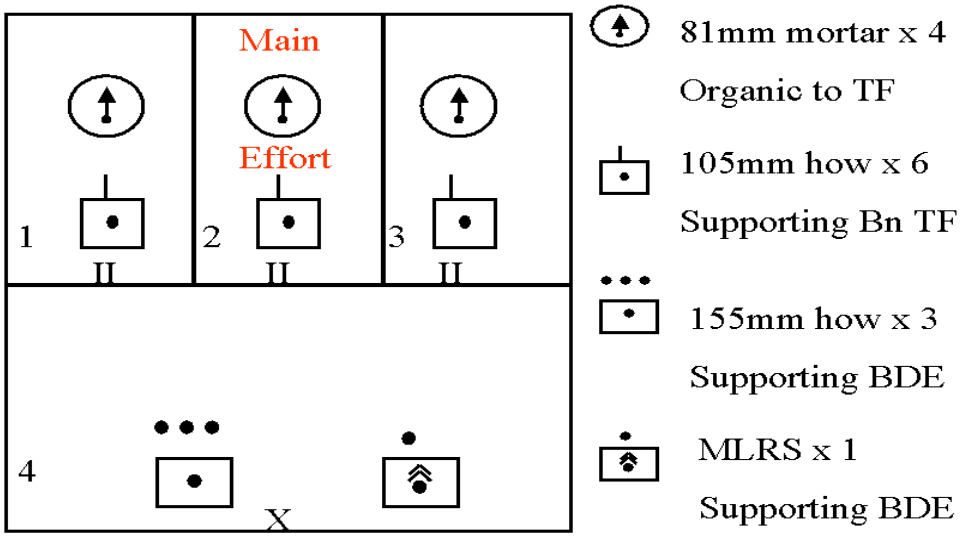


Figure A-3 Brigade ZOR massing example

In the Example above the Massing Capability for the Bn TF in Sector 1,3 would be calculated as follows if the OPFAC was a BDE FSE and each unit was in the Org for Cbt listed above. Tubes in Sector

Sector 1,3

4 x 81mm MORT (RV=.5), Unit RV 4 x .5 = 2
6 x 105mm HOW (RV=.5), Unit RV 6 x .5 = 3

Total = 5

Adjacent TF Sector Main Effort (ME)

Sector 2

4x 81mm MORT (RV=.5), Unit RV 2, Mass Potential 0, 2 x 0 =0

6 x 105mm HOW (RV=.5), Unit RV 3, Mass Potential 1/3, 1/3 of 3 is 1

Total = 1

Adjacent BDE Sector

Sector 4

3 x 155mm HOW (RV=1), Unit RV 3, Mass Potential 2/3, 2/3 of 3 is 2

1 x MLRS (RV=2), Unit RV 2 Mass Potential 2/3, 2/3 of 2 is .66

Total = 2.66

Sector 1 Massing Capability is

Sector 1= 5
Sector 2= 1
Sector 4= 2.66

Total = 8.66

In the Example above the Massing Capability for the Bn TF in Sector 2 ME would be calculated as follows if the OPFAC was a BDE FSE and each unit was in the Org for Cbt listed above.

Tubes in Sector
Sector 2

4 x 81mm MORT (RV=.5), Unit RV 4 x .5 = 2
6 x 105mm HOW (RV=.5), Unit RV 6 x .5 = 3

Total = 5

Adjacent TF Sector as ME
Sector 1

4x 81mm MORT (RV=.5), Unit RV 2, Mass Potential 2/3, 2/3 of 2 is .66

6 x 105mm HOW (RV=.5), Unit RV 3, Mass Potential 2/3, 2/3 of 3 is 2

Sector 3

4x 81mm MORT (RV=.5), Unit RV 2, Mass Potential 2/3,
2/3 of 2 is .66

6 x 105mm HOW (RV=.5), Unit RV 3, Mass Potential 2/3,
2/3 of 3 is 2

Total = 5.32

Adjacent BDE Sector
Sector 4

3 x 155mm HOW (RV=1), Unit RV 3, Mass Potential 2/3,
2/3 of 3 is 2

1 x MLRS (RV=2), Unit RV 2 Mass Potential 2/3,
2/3 of 2 is .66

Total = 2.66

Sector 1 Massing Capability is

Sector 1= 5
Sector 2= 5.32
Sector 4= 2.66

Total = 12.98

In the Example above the Massing Capability for the BDE would be calculated as follows if the OPFAC was a BDE FSE and each unit was in the Org for Cbt listed above.

Tubes in Sector
Sector 4

3 x 155mm HOW (RV=1), 1 x 3= 3,
Unit RV 3

1 x MLRS (RV=2), 2 x1=2,
Unit RV 2

Total = 5

Adjacent TF Sector as ME

Sector 1

4x 81mm MORT (RV=.5), Unit RV 2, Mass Potential 2/3,
2/3 of 2 is .66

6 x 105mm HOW (RV=.5), Unit RV 3, Mass Potential 2/3,
2/3 of 3 is 2

Sector 2 (ME)

4x 81mm MORT (RV=.5), Unit RV 2, Mass Potential 0,
0x2=0

6 x 105mm HOW (RV=.5), Unit RV 3, Mass Potential 1/3,
1/3 of 3 is 1

Sector 3

4x 81mm MORT (RV=.5), Unit RV 2, Mass Potential 2/3,
2/3 of 2 is .66

6 x 105mm HOW (RV=.5), Unit RV 3, Mass Potential 2/3,
2/3 of 3 is

Total = 6.32

Sector 4 Massing Capability is

Sector 4 = 5
Sector 1,2 and 3 = 6.32

Total = 11.32

Rounds Required.

Rounds required values are based off of a 155mm howitzer for its count. This is a relative value to give the operator an idea of the difference between phase and plans on number of Rounds to be used.

Values are based on the:

a. Enemy unit array.
b. Number of Platoon size elements in the unit.
c. Target guidance defeat criteria, (suppress, neutralize, destroy, or a specified %) for target type and category. If a specified percentage is given then the nearest listed percentage will be used. I.e. if 15% is specified then the Neutralize Column (10%) would be used.
d. FS system Preference Table determines if available system is restricted or unavailable to achieve effects on target type. For example if in the FA Preference Table 105mm HOW battery B is “R” for Target Type of infantry then the round count required would not be added to the total.
e. Embedded classified Planning rounds Required Matrix (assumed round expenditure to defeat elements of an enemy array)

Task Supportable.

Task supportable offer the operator an estimate of numbers of task Fire Support will be required to accomplish. Tasks are calculated for each maneuver sector and the entire COA. FS Tasks considered are:

a. Close Support Tasks – the engagement of all targets in the Close and Rear Battle Areas except for FS and ADA.
b. Counterfire Tasks – include the engagement of all FS targets in all areas.
c. SEAD Tasks – Engagement of all ADA targets in all areas.
d. Interdiction Tasks – Include the engagement of targets in the Deep battle area except for FS and ADA target types.

Each enemy unit is calculated to one or more task dependent on the number of Platoons in the unit icon. Figure A-4 provides an example of how numbers of task within a Plan or COA are determined. The OPFAC is activated as a BDE FSE.

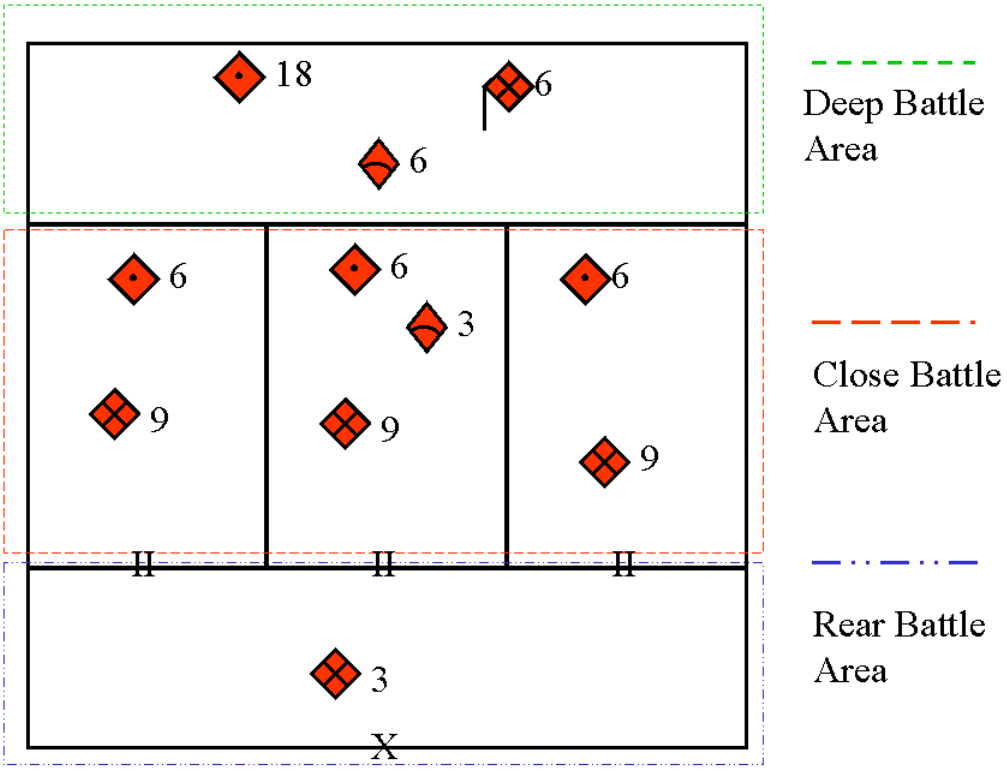


Figure A-4 Task Calculation Example

The Middle Bn TF Sector (ME) for previous example (fig A-3) is facing the Following enemy Units in his sector.

6 Platoons of Artillery
3 Platoons of Air Defense Artillery
9 Platoons of Infantry

Close Support Task = 9
Counter Fire Task = 6
SEAD Tasks = 3
Interdiction Tasks = 0

No Deep Close or Rear Battle areas are defined for the Bn TF only enemy units in the Bn Zone of Responsibility (ZOR) is considered

Close Support Task**:** 9 platoons of infantry are considered close support task.

Counterfire Tasks: All 6 artillery platoons are considered Counterfire task.

SEAD Tasks: All 3 platoons of ADA are considered SEAD Task.

Interdiction Tasks: No interdiction task will be calculated.

As a BDE OPFAC the BDE Task Supportable list would be as follows;

36 Infantry Platoons	Close Support Task = 30
36 Artillery Platoons	Counterfire Tasks = 36
9 ADA Platoons	SEAD Tasks = 9
	Interdiction Tasks = 6

Close Support Task**:** The 6 infantry Platoons in the Deep battle area do not count for Close Support, ADA counts for SEAD and ARTY counts for Counterfire. The 3 infantry Platoons in the Rear Area count in the Close Support Tasks.

Counterfire Tasks: All 36 artillery Platoons are considered Counterfire task.

SEAD Tasks: All 9 ADA platoons are considered SEAD Tasks.

Interdiction Tasks: 6 Infantry Platoons in the Deep Battle Area are considered Interdiction Tasks, the 18 Artillery platoons are Counterfire Tasks and the 6 ADA platoons are considered SEAD even though they are in the Deep Battle Area.

FS System	Caliber	Mission	Number of Platoon size targets Unit can fire a Day	Percentage By Task			
				Close Support	SEAD	Counter Fire	Interdiction
Mortar	81mm		100	100	0	0	0
	107mm		75	80	0	15	5
	120mm		70	80	0	15	5
FA	105mm	DS	75	70	10	15	5
	105mm	R	75	65	10	15	10
	105mm	GSR	70	35	15	35	15
	105mm	GS	70	10	15	55	20
	155mm	DS	80	70	5	15	10
	155mm	R	80	65	10	15	10
	155mm	GSR	75	20	10	55	15
	155mm	GS	25	10	15	55	20
	203mm	DS	35	70	5	15	10
	203mm	R	65	65	10	15	10
	203mm	GSR	70	20	10	55	15
	203mm	GS	70	10	15	55	20
MRLS		R	12	30	5	55	10
		GSR	12	15	10	60	15
		GS	12	5	15	60	20
NSFS	5 in	DS	8	70	5	15	10
	5in	GS	8	10	15	55	20
	16 in	DS	8	5	5	70	20
	16 in	GS	8	5	5	70	20

Figure A-5 Task Percentage example

Figure A-5 is then used to determine if the numbers of Task are supportable based off of Caliber, Mission Assignment and number of Platoon size elements the system can engage in a day. The number of Platoon size elements is then expressed as a percentage in relation to the type of task it can support.

As an example if a Bn Task force had 81mm mortars (100 platoon targets a day) only the Close Support type targets would be calculated as a supportable ratio. If the Bn TF had 120mm mortars (70 platoon targets a day) 80% (56 missions) would be considered for Close Support and 15% (10.5 missions) for Counterfire and 5% (3.5) for Interdiction.

The Total Task Supportable for each sector is determined by dividing the total number of supportable tasks for all units in a sector by the total of the task in the sector. The Total value of the Tasks Supportable %: is determined by averaging the sectors for each value

Simplicity.

Value is based on changes in mission assignment between phases. Applicable for Division level echelon in the Friendly Situation of a Plan. Organization for Combat will then reflect the Missions of DS, R, GS and GSR. The simplicity for a given phase is determined by comparing the mission and sector changes (identified in the Organization for Combat) from the previous phase to the COA for the phase being analyzed and adding the vales together for multiple phase plans. The following figure A-6 is used to evaluate simplicity rating for a COA. Phase 1 of a Plan always has a simplicity value of 0.

Mission 1	Mission 2	Change Sector	Difficulty Rating
DS	DS	Y	1
	R	Y	6
	R	N	14
	GSR		9
	GS	Y	10
R	DS	Y	4
	DS	N	5
	R	Y	11
	GSR		12
	GS	Y	13
GSR	DS		3
	R		8
	GSR	Y	15
	GS	Y	16
GS	DS	Y	2
	R	Y	7
	GSR	Y	17

Figure A-6 Simplicity Calculation table

For Example:

a. In Phase 1 of a division plan a 155 Battery is R to our 1st BDE.
b. In Phase 2 of the operation the same 155 Battery changes to DS to 2 BDE
c. Phase 3 the mission changes back to R for 1 BDE.

Phase 1 Simplicity Rating = 0
Phase 2 Simplicity Rating = 4
Phase 3 Simplicity Rating = 6

Total Simplicity rating for just that battery is 10. This is done for all Firing units assigned missions in the plan to determine the Simplicity Rating.

System Utilization.

Value is based on the following:

a. Attack guidance (attack system preference).
b. Enemy array.
c. Available tubes in each surface-to-surface system (NSFS, FA and Mortar).

This value is determined as follows:

First the total number (expressed percentage) of targets in the enemy unit array, which are expected to be attacked by each surface-to-surface FS system, is determined.

For example, if there are 100 units in the enemy array, after comparing these against the matrix/default preferences, it is determined that 30 are allocated to FA, 45 to NSFS and 25 to mortars. The allocated percentage would be:

FA	30%
NSFS	45%
Mortar	25%

Second the total percentage each surface-to-surface FS system contributes to the overall tube equivalent total in the planned unit list is determined.

For example, if there is a total of 100 tubes equivalents contained in the FS units listed in the plan/phase friendly unit list. Sixty-five are FA, ten are NSFS and twenty-five are Mortars then the total percentage of FA in the force structure is:

FA	65%
NSFS	10%
Mortar	25%

To determine the utilization-tube count difference, calculate the difference between the percent of an FS system in the force structure and the percent of total targets assigned to that FS system. For example:

	%Target Assigned	%Tubes in force Structure	Difference
FA	30%	65%	-35%
Naval Gun	45%	10%	35%
Mortar	25%	25%	0%

Total Difference (Absolute Value) 70%

This utilization-tube count difference is displayed by FS System in the System Utilization window (Planning > FS Estimate > Options > MOE Statistics > System Utilization) figure A-7.

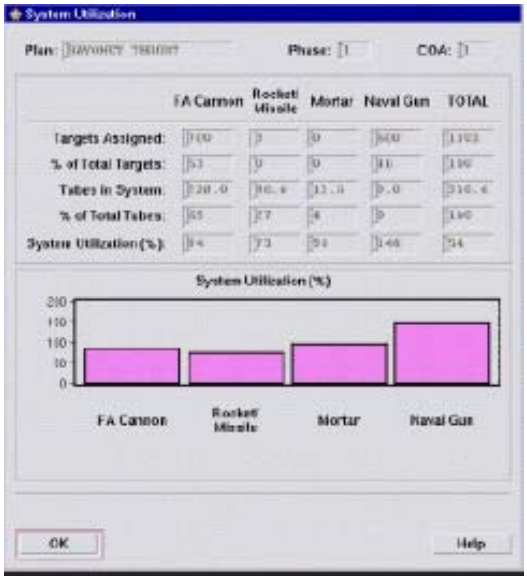


Figure A-7 System Utilization table

The system utilization window will allow the operator to determine what systems are being under or over utilized. To adjust the utilization go into your guidance's and adjust each Surface-to-Surface Attack Method table to effect the utilization calculation.

Appendix B

Fire Support Annex

Format as per FM 3-09.4, 31 May 1997

SAMPLE FS Annex.

(CLASSIFICATION)
The classification is written at the top and bottom of each page of the order.
(Change from oral orders, if any)

Copy _ of _copies
Issuing headquarters
Place of issue (may be in code)
Date-time group (DTG)
Message reference no.

ANNEX _ (FIRE SUPPORT) TO OPERATION ORDER_
References: Maps, charts, and other relevant documents. Include datum and spheroid.
Time Zone Used Throughout the Order:

1. SITUATION
Include information affecting FS that paragraph 1 of the OPORD does not cover or which needs to be expanded.

a. Enemy Forces. See Annex B to OPORD _, if provided.

(1) This paragraph includes a detailed description of enemy FS and EADS assets. Address Army aviation, CAS, EW, SOF, FA, NGF or missile capabilities, and NBC capabilities. Address EADS assets from the viewpoint of their capability to disrupt friendly air combat operations, either fixed or rotary wing. Describe the composition, organization, tactical doctrine, weapons, equipment, and FS logistic operations. Refer to previously published documents such as an OB workbook or intelligence annex.

(2) Information is normally gathered one level up and two levels down; however, include higher echelon FS assets identified by the S2 as capable of influencing mission accomplishment. List enemy rocket, cannon, or missile FA units, including those organic to maneuver units, as being committed or reinforcing. List all FA units that can be identified as being committed or reinforcing. Consider all FA units that can be identified as being within supporting range as being in support of the committed force. For aviation and air, list the type and number of enemy aircraft, the airfields, and their operational radius. Include the number of possible sorties by day, if known. Include enemy airborne EW capabilities and their possible effects on friendly C3. Estimate the number, type, yield, and delivery means of enemy NBC weapons available to the committed force.

b. Friendly Forces.

(1) Provide the higher headquarters' mission and the commander's intent. Include the higher headquarters' concept of fires.

(2) Provide adjacent units' concept of fires.

(3) Include supporting air power and naval forces.

c. Attachments and Detachments. List FS resources attached or OPCON to the unit by higher headquarters and any units detached or OPCON to other headquarters.

2. MISSION

Clearly, concisely state WHO does WHAT, WHEN, and WHERE. Do not include be-prepared missions in the mission statement.

3. EXECUTION

a. Concept of Fires. Describe how fires will be used to support the maneuver commander's concept of operation. This must be consistent with what is in paragraph 3a(2) of the higher

headquarters OPLAN but may be in greater detail. Describe each phase of the operation as it applies to FS operations if the higher headquarters plan is phased. Address EFSTs such as counterfire, preparations and counterpreparations, supporting SEAD/J-SEAD operations, and joint precision strike operations. Address the objectives for using air power, FA, NGF, and EW. Address the priority of FS for GS and GSR units by phase, if applicable.

b. Air Support.

(1) General. Briefly describe the maneuver commander's guidance for the use of air power.

(2) Air interdiction operations. Briefly describe the JFACC's intent for AI. Describe the maneuver commander's concept for AI within his area of operations as well as his priorities for target attack.

(3) Close air support operations. Give the allocation and distribution of CAS sorties by subordinate unit. This paragraph may also include the desired method for planning CAS (immediate or preplanned) or any special control arrangements.

(4) Electronic combat operations. Include the concept for use of EC aircraft if resources are provided by the JFACC.

(5) Air Reconnaissance operations. Include the concept for use of RECCE aircraft if resources are provided by the JFACC.

(6) Miscellaneous. Include information necessary for planning as well as information not included in or which includes changes to the SOP, such as in the following areas:

(a) The air tasking order's effective time period.

(b) Deadlines for submission of AI, CAS, RECCE, and EC requests.

(c) The mission request numbering system as it relates to the target numbering system.

(d) The J-SEAD tasking from the JFLCC.

(e) Reference to essential A2C2 measures (coordinating altitude, target areas, low level transit route requirements, and so on) identified in the A2C2 annex.

c. Field Artillery Support.

(1) General. Include the concept for use of cannon, rocket, and missile FA in support of close, deep, and rear operations. Include specific tasks to subordinate FS headquarters; for example, counterfire or the SEAD planning responsibility. Address any potential requirements for massing fires that may affect direct support or reinforcing FA units. The timing and duration of specific fire plans should be identified (counterfire, preparations, counterpreparations, SEAD, or J-SEAD).

(2) Organization for combat. The organization for combat should provide the unit designation, nomenclature and tactical task i.e. 2-82 FA (M109A6) DS.

(3) Allocation of ammunition. List the allocation of cannon, rocket, and missile ammunition for each phase of the operation based on the amount of CL V supplies available in theater and allocated to the corps (unconstrained haul capability) as shown here.

	Cannon	Rocket	Missile
Phase I	28,000	5,000	400
Phase II	60,000	9,000	1,100
Phase III	35,000	7,500	600

(4) Miscellaneous. Include information necessary for planning as well as information not included in or which includes changes to the SOP. Refer to an FS execution matrix or a matrix developed by the FSCOORD to graphically portray the concept of fires (lethal or nonlethal) to support the maneuver commander's concept of operation, if needed. If desired, refer to a FA support plan (an appendix to the FS annex that expands on FA tasks). Other information in this subparagraph may include the following:

(a) Changes to the targeting numbering system.

(b) The use of pulse repetition frequency codes.

(c) Positioning restrictions and/or a position area overlay.

d. Naval Surface Fire Support.

(1) General. Include the concept for use of NSFS. Include specific tasks to supporting FS headquarters.

(2) Organization. List the grouping or organization for combat, including the following:

(a) The allocation of observers and/or spotters.

(b) The allocation of ships to units.

(3) Miscellaneous. Include information necessary for planning as well as information not in or which includes changes to the SOP, such as the following:

(a) Trajectory limitations or minimum safe distances.

(b) Frequency allocations.

(c) Reference to a NSFS annex.

e. Chemical Support.

(1) Include the concept for use of smoke. (Refer to the NBC Annex.

(2) Prescribe priorities for decontamination and reconnaissance.

f. Offensive EW Support. Include the concept for use of EW (jamming). Include specific tasks to supporting EW organizations. Refer to the EW annex for EW organization, ES and EA priorities, and restricted frequency lists. See paragraph 3a(5) of the OPLAN for the concept for use of EW.

g. Target Acquisition. Include information pertaining to the employment and allocation of FA TA systems and IEW assets. Refer to a FA support plan for specific TA tasks, if needed. The FA support plan can include planning products such as an observation matrix, FSEM, radar deployment order, or TA appendix.

h. Coordinating Instructions. Include information pertaining to the force as a whole for use by subordinate and adjacent units to coordinate fires. This may include the following areas:

(1) A clear definition of the boundary of the deep operations area if not specified in the basic plan. This area may be identified by phase if it is a phased operation.

(2) Refer to targeting products (TSS, HPTL, and AGM), if needed.

(3) Fire support coordination measures.

(4) Refer to time of execution of program of fires relative to H-hour (counterfire, preparations or counterpreparations, J-SEAD, and so on), if needed.

(5) Include rules of engagement.

4. SERVICE SUPPORT

a. Concept of Support. Describe critical or unusual sustainment actions that might occur before, during, and after the battle to support the commander's concept of fires. Use additional subparagraphs to provide more detailed CSS information by area (man, arm, fuel, fix, and move) and to describe classes of supply.

b. Supply. Identify the location of ammunition transfer points (ATPs) and ammunition supply points (ASPs), or refer to the logistics overlay. List the CSR, if needed.

5. COMMAND AND SIGNAL

a. Command.

(1) Identify locations of maneuver unit TAC, MAIN, and REAR CPs and alternate headquarters.

(2) Identify locations of FA CPs and FSEs as well as alternate headquarters. Identify the succession of command.

b. Signal. Identify the current SOI edition as well as the FS code book edition.

ACKNOWLEDGE:

NAME (Commander's last name)
RANK (Commander's rank)

OFFICIAL:
APPENDIXES:
DISTRIBUTION:

Warning Order Format
Format as per FM 100-5, 31 May 1997

SAMPLE WARNO.

_____

(Classification)
(Change from oral orders, if any)
A WARNING ORDER DOES NOT AUTHORIZE EXECUTION UNLESS SPECIFICALLY STATED

Copy _ of _copies
Issuing headquarters
Place of issue (may be in code)
Date-time group (DTG)
Message reference no.

References: Refer to higher headquarters OPLAN/OPORD, and identify map sheet for operation. Optional.
Time Zone Used Throughout the Order: (Optional)
Task Organization: (Optional) (See paragraph 1c.)

1. SITUATION

a. Enemy forces. Include significant changes in enemy composition dispositions and courses of action. Information not available for inclusion in the initial WARNO can be included in subsequent warning orders.
b. Friendly forces. (Optional) Only address if essential to the WARNO.
(1) Higher commander's mission.
(2) Higher commander's intent.
c. Attachments and detachments. Initial task organization, only address major unit changes.

2. MISSION. Issuing headquarters' mission at the time of the WARNO. This is nothing more than higher headquarters' restated mission or commander's decisions during MDMP.

3. EXECUTION

Intent:
a. Concept of operations. Provide as much information as available; this may be none during the initial WARNO.
b. Tasks to maneuver units. Any information on tasks to units for execution, movement to initiate, reconnaissance to initiate, or security to emplace.
c. Tasks to combat support units. See paragraph 3b.
d. Coordinating instructions. Include any information available at the time of the issuance of the WARNO. It may include the following:
1. CCIR.
2. Risk guidance.
3. Deception guidance.
4. Specific priorities, in order of completion.
5. Time line.
6. Guidance on orders and rehearsals.
7. Orders group meeting (attendees, location, and time).
8. Earliest movement time and degree of notice.

4. SERVICE SUPPORT. (Optional) Include any known logistics preparation for the operation.

a. Special equipment. Identifying requirements, and coordinating transfer to using units.
b. Transportation. Identifying requirements, and coordinating for pre-position of assets.

5. COMMAND AND SIGNAL (Optional)

a. Command. State the chain of command if different from unit SOPS.
b. Signal. Identify current SOI edition, and pre-position signal assets to support operation.

ACKNOWLEDGE:

NAME (Commander's last name)
RANK (Commander's rank)

OFFICIAL:
APPENDIXES:
DISTRIBUTION:

_____

(Classification)

SAMPLE FRAGO.

Fragmentary Order Format

Format as per FM 100-5, 31 May 1997

_____
(Classification)
(Change from oral orders, if any)

Copy _ of _copies
Issuing headquarters
Place of issue (may be in code)
Date-time group (DTG)
Message reference no.
Fragmentary order _____

References: (Mandatory) Reference the order being modified.
Time Zone Used Throughout the Order (Optional)

1. **SITUATION.** (Mandatory) Include any changes to the existing order.

2. **MISSION.** (Mandatory) List the new mission.

3. EXECUTION

Intent: (Optional)

a. Concept of operations. (Mandatory)
b. Tasks to subordinate units. (Mandatory)
c. Coordinating instructions. (Mandatory) Include statement, current overlay remains in effect or See change 1 to Annex C, Operations Overlay.1 Mark changes to control measures on overlay or issue a new overlay.

4. SERVICE SUPPORT. Include any changes to existing order or the statement, 1 No change to OPORD xx.î

5. COMMAND AND SIGNAL. Include any changes to existing order or No change to OPORD xx.î

ACKNOWLEDGE:

NAME (Commander's last name)
RANK (Commander's rank)

OFFICIAL:
APPENDIXES:
DISTRIBUTION:

_____
(Classification)